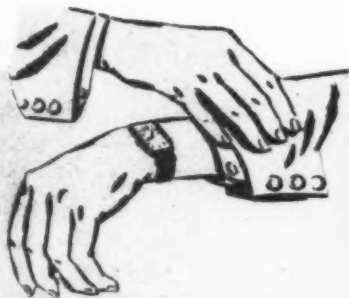


THE PHOTO LITHOGRAPHER

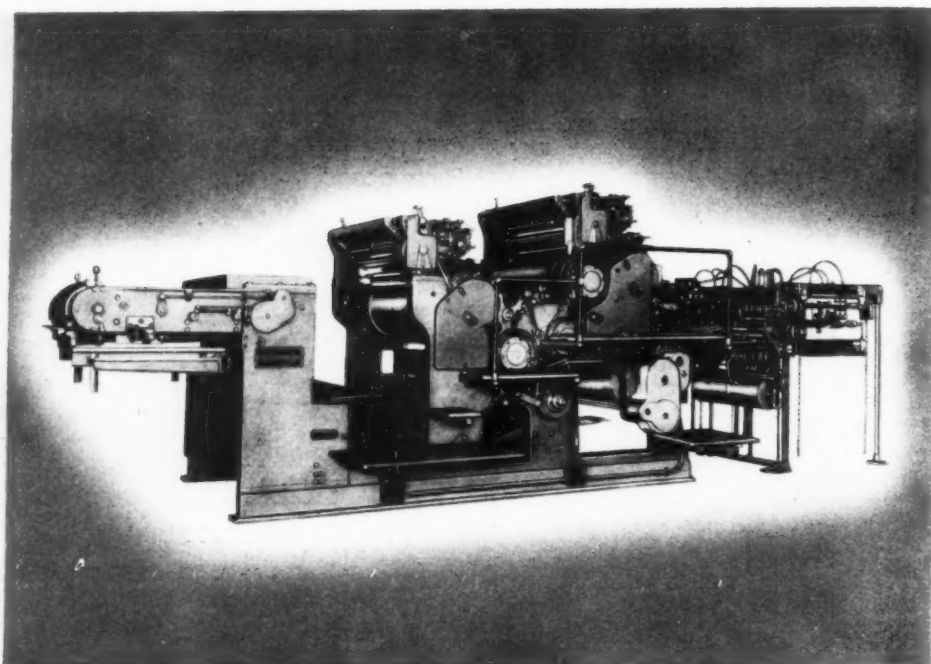


NOVEMBER • 1937

No. 5



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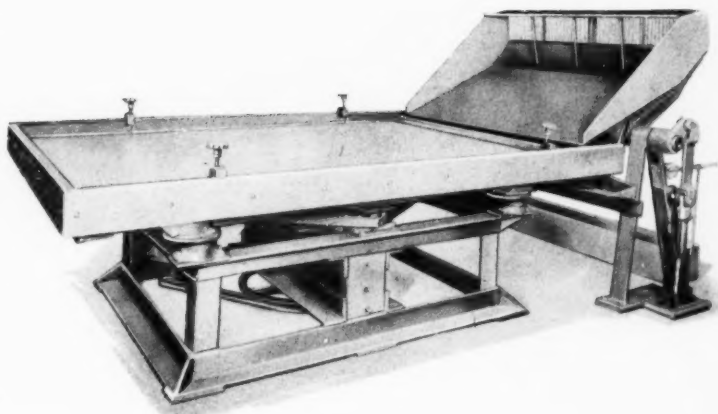
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THE PHOTO-LITHOGRAPHER

THE PHOTO-LITHOGRAPHER

*Published in the Interests of Lithographers
to Increase Sales Efficiency
and Quality*

WALTER E. SODERSTROM
PUBLISHER AND EDITOR

SAMUEL D. WOLFF
ADVERTISING MANAGER

Volume V

NOVEMBER, 1937

Number 11

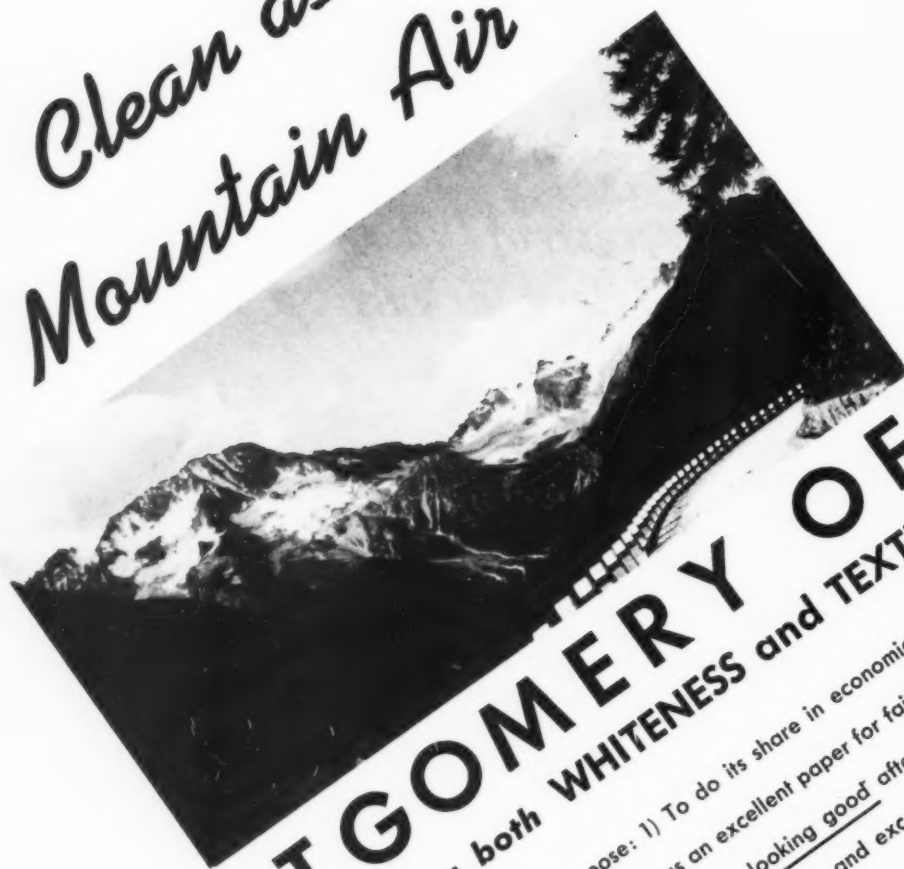
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Official Organ of the National Association of Photo-Lithographers.
Published by Walter E. Soderstrom, 1776 Broadway, New York, N. Y.
ADVERTISING RATES: Advertising rates made known on application.
Closing date for copy, thirtieth of the month previous to date of issue.

SUBSCRIPTION RATES: \$3.00 per year in the United States, \$4.00 per
year in Canada. Single copies 30 cents.
Acceptance under the Act of June 5, 1934. Authorized November 14, 1935.
Other publications issued: The Photo-Lithographer's Manual, \$4.00.

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*(from many letters and
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*They Eliminate
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No matter the weight of the paper, air suction will grip and hold it, and that is why you can depend on any printer's machine if it has this air pump on it. It will pay you to look for it carefully. Most machines have it already; reason enough to be sure that the machine you buy has it.

Air from cylinder through by-pass in cylinder head enters this slot on its way to the outlet above. No opening in curved inner surface of cylinder means quiet operation.

OUTLET threaded for standard iron pipe.

Enclosed stud in piston holds wing close to cylinder at top, preventing loss of air pressure.

Air coming in at inlet at side comes through this slot into cylinder head by-pass and thence into the cylinder. No opening in curved inner surface of cylinder means quiet operation.

INLET threaded for standard iron pipe.

Direction of rotation, showing how extended wing scoops up the air admitted at inlet, each revolution carrying it around to the outlet.

Leiman Bros.
PATENTED ROTARY

**AIR
PUMPS**

... THEY TAKE UP THEIR OWN WEAR

This is the air pump that is used by printers everywhere. They are also used for blowing to loosen up the sheets on a pile; and we have strainers to prevent oil from spraying on the sheets. The printer also uses these pumps for cooling linotype moulds and for blowing dust out of the working parts of machines and out of type cases. The electrotypist uses the air for agitating his plating solutions, and these pumps are found in almost every plant doing this work. In the big shops, especially in the newspaper plants, these pumps operate the stereotype furnaces creating high heats with gas or oil as fuel.

WILL IT MAINTAIN THIS SUCTION VERY LONG?

Our picture showing the inside construction will answer this. These curved wings scoop up the air as they rotate. Centrifugal force holds them out against the cylinder while in motion, and so they are always snugly fitted, no matter how old they may be.

Also used for operating all sorts of automatic machinery and devices.

The easy-action hinge enables wing to open and close, thus becoming wear-compensating by the action of centrifugal force.

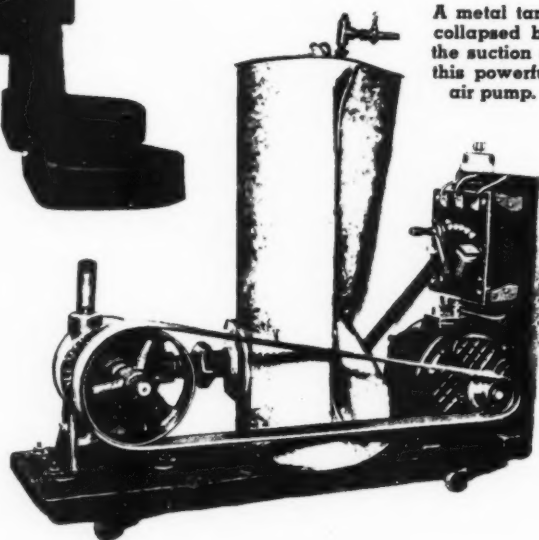
THE WINGS SCOOP UP THE AIR

Wing and cylinder surfaces become hard and glassy, insuring a perfect fit and positive pressure or vacuum. No composition tips to require renewal frequently.

THIS PUMP IS THE HEART OF ANY MACHINE

And every machine, like every man, is benefited by having a good heart — one that responds when called upon for its best efforts, not one that quits when it is most needed. And in this instance it costs no more when you get a machine with this good heart — the most powerful and long-lasting air pump made.

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THE PHOTO-LITHOGRAPHER

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★ **Monotype-Huebner Vertical Photo-Composing Machine** with Non-Embossing Negative Holder and Universal Register Device—Designed for the special purpose of securing close precision in registering negatives for single and multicolor process work in lithographic offset and gravure plate making. Accuracy in positioning images on the plate is assured by rigid construction and by the use of notch-bar positioning mechanism with micrometer movement for final adjustment into position. Made in three sizes.

★ **Monotype-Directoplate Simplex Photo-Composing Machine**—For the accurate placement of images on offset or lithographic press plates. Simple in operation and designed for multicolor reproduction or simple black-and-white work, and step-and-repeat work. Made in two horizontal models.

★ **Monotype-Huebner Photo-Imposing System**—A practical method by which line color register can be obtained without the use of a photo-composing machine in making offset press plates. Involves the use of a Layout and Register Table, a Registering Vacuum Frame and Register Chases. Made in two sizes.

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REPROLITH FILM—an ideal medium of highest contrast for monochrome originals.

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FOR NOVEMBER," MONTH
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THE FOLLOWING PAGE HELP
YOU SCORE A TOUCHDOWN
ON THE FIELD OF COLOR.

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Possesses fine adhesive qualities, even on hard surfaced papers.

Dries on paper within two to five hours with a fine hard film possessing non-rub and non-scratch properties.

FOR METAL DECORATING—Adhesive qualities superior to ordinary inks. Lithox works well on brass, aluminum, tin and iron. Drying rate for tin printing is unusual, ranging from seven to ten minutes at 220° F. in 50-ft. ovens.

Develops good non-scratch properties.

When baked, Lithox produces a fine gloss, no special compounds being necessary.

Traps exceptionally well.

Provides good surface for finishing varnishes and lacquers with better gloss.

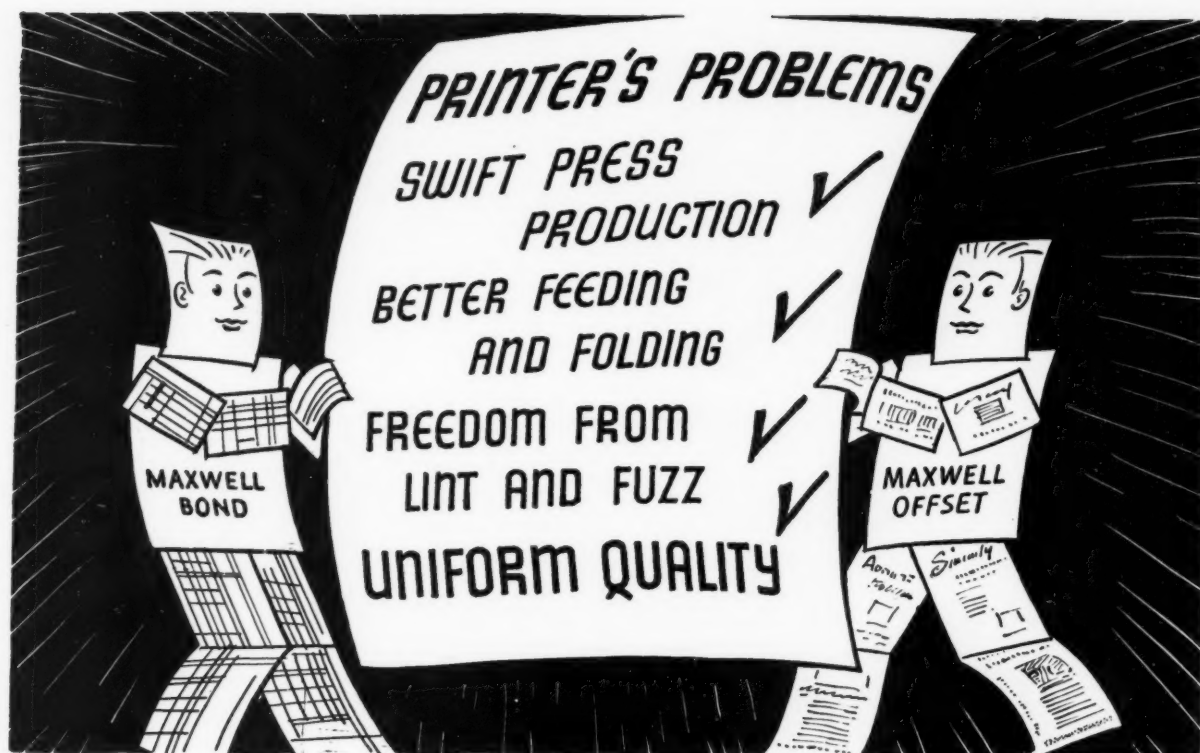
The lithographic industry through their own progressive technical studies have shown their appreciation of fundamental scientific research. They have set up objectives which ordinary lithographic inks have not met. To meet these objectives The Research Laboratories of IPI, in collaboration with experienced practical pressmen, have developed IPI Lithox, a new formulation for the planographic process. So outstanding a contribution to the lithographic industry will naturally raise many questions on the application of Lithox inks to your pressroom problems. A trained representative of the IPI Lithographic Products Division will be glad to discuss with you the possible advantages of Lithox to your lithographic and offset printing. Inquiries may be addressed to any of our twenty-eight conveniently located branches.

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ST. LOUIS	ST. PAUL	SAN FRANCISCO	WASHINGTON, D. C.								

THE IPI "COLORGRAM" FOR NOVEMBER—The design on the other side is one of a series by Robert Leonard, planned to express the color mood of the month. Yellow-oranges form a background for the complementary blue notes in the pennant and IPI. To partially compensate for this violent contrast, the football players are handled in a low key and in grayed colors. This insert was lithographed with IPI Lithox, a new development for lithographing on both paper and metal.



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REAGENT Exhaustive laboratory tests (eleven in all) enable us to control troublesome impurities; for example, the sulfate content is less than 0.006%. If your formula is sensitive to impurities, this is the recommended grade.

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RAHWAY, N. J.

THE PHOTO-LITHOGRAPHER

THE PHOTO-LITHOGRAPHER

*Published in the Interests of Lithographers to Increase
Sales Efficiency and Quality*

Volume V

NOVEMBER, 1937

Number 11

CONVENTION OF PHOTO-LITHOGRAPHERS THE LARGEST EVER

A RAPIDLY growing interest in closer cooperation in the photo-lithographic industry is indicated by the unprecedented attendance at the annual convention of the National Association of Photo-Lithographers, held in Cleveland, October 14th, 15th and 16th.

Over 500 in attendance represented the largest convention of photo-lithographers ever assembled.

At a luncheon given by the Harris-Seybold-Potter Company to those who attended the convention, it was necessary to seat guests far out into the mezzanine. After that was filled, additional guests were accommodated by setting up seven large tables in another room. The annual dinner brought together a group of similar size.

PRESIDENT HEIDEKE OPENS CONVENTION

Paul A. Heideke, who was re-elected President of the Association for the new year welcomed the convention. He said:

"Needless to say that I am glad to greet our old friends again and I extend a hearty welcome to our new ones and to all in attendance. Your presence here proves beyond a shadow of a doubt that our purpose and efforts are worthwhile and that our permanence and growth is assured.

"Many here today and others that will come later today and tomorrow to bring with them their key men are doing so at considerable sacrifice in both time and money, and I hope their attendance at this Convention will pay them both in dividends and satisfaction.

"I now declare the Fifth Annual Convention of the National Association of Photo-Lithographers in session."

NEW LEGISLATION DISCUSSED BY CAPTAIN MONTFORT

L. B. Montfort, General Counsel of the Association, delivered an enlightening paper on "New Legislation and Its Relation to the Lithographic Industry."

EXPERT TELLS HOW COLOR CAN BE USED MORE EFFECTIVELY

G. L. Erickson, Technical Director of the Braden Sutphin Ink Co., Cleveland, Ohio, delivered an educational eye and word picture on "Color: What It Is and How It Should be Used." His paper will be published in an early issue of THE PHOTO-LITHOGRAPHER.

CODE OF ETHICS ADOPTED

R. M. Collins, Vice President, presented a Code of Ethics which was adopted.

Merle S. Schaff, one of the directors, offered trade practices for the industry. After a full and free discussion on these important items, they were adopted unanimously.

WILL PUBLISH ESTIMATING MANUAL

William J. Volz, Sackett & Wilhelms Lithograph Corporation, presided at a session for cost and estimating personnel. He outlined with considerable detail the work which the Association has carried on in connection with costing, establishing economic hourly rates and production standards. He cited particularly the estimates on actual jobs sent out during the year to the members. A recommendation was made that a committee be appointed for the purpose of preparing a lithographic estimating manual. The convention was unanimous in the thought that such a manual would be of inestimable benefit, and quickly voted approval.

SECRETARY REVIEWS ASSOCIATION ACTIVITIES

Walter E. Soderstrom, Executive Secretary of the Association, made a comprehensive review of Association activities in his annual report. He told how the Association is taking care of the need of members for up-to-the-minute, authoritative information concerning many matters of vital importance to the industry, such as wage scales, unionization vs. open shop, cost data, administrative methods, where competent technical men can be obtained, how to raise quality levels, how to educate salesmen and estimators.

Mr. Soderstrom mentioned the constant flow of letters to his office from all over the country, asking for enlightenment on such matters.

The important ways in which the Association is helping its members were described by Mr. Soderstrom. He cited the benefits of the Association's selling courses, cost data, estimates on actual jobs, and cost systems and forms, all based on study of the operation of successful plants throughout the industry.

Technical data was supplied from headquarters by Dr. L. R. Meloy. *THE PHOTO-LITHOGRAPHER* and its growth from a four-page bulletin to a magazine recognized as one of the leaders in the field, were other Association benefits described by Mr. Soderstrom.

NEW CHEMICAL FORMULAS INTEREST MANY AT HARRIS-SEYBOLD-POTTER PLANT

Eight large buses were required to carry convention guests to the plant of the Harris-Seybold-Potter Company Friday noon.

Interest at the plant was so great in the operation of the presses and in the chemical and research division, in

charge of William Wood, research chemist, that many stayed long hours to learn more about the part new chemical formulas, being developed by the Company, will play in the future of their business.

PLANT DEMONSTRATIONS EXPLAIN IMPORTANT OPERATIONS

One of the reasons for the good attendance and the interest created can be attributed to the technical demonstrations conducted in the plants of Copifyer Corp. of Ohio and Horn & Norris, Inc. Large groups took part in the demonstrations conducted on both Friday and Saturday. Credit is due to K. W. Martin of the Harold M. Pitman Company for his deep etch plate demonstrations, and to a working crew from the Eastman Kodak Company, including Messrs. McMaster, Clair and Mills, for the demonstrations on making color separations, and to Dr. L. R. Meloy for his cooperation in discussing press room problems.

AUTHORITIES PARTICIPATE IN MAJOR KIRBY'S SYMPOSIUM DISCUSSIONS

Major Wallace W. Kirby, Kirby Lithographic Company, Washington, D. C., presided at the Saturday morning Symposium Discussions on problems arising in a lithographic plant. In this "Share Your Knowledge" session, outstanding authorities in the field contributed liberally from their wide experience. Among those who took part in the presentations and discussions were:

Summerfield Eney, Champion Paper Co.; I. Thorner, Agfa Ansco Corporation; Kenneth W. Martin, Harold M. Pitman Co.; Joseph E. Machell, Stecher Traung Lithographic Co.



K. W. Martin,
Harold M. Pitman
Company,
Demonstrating
Deep-Etch
Plate
Making



Even the photographer couldn't disturb the rapt concentration that characterized those attending the technical sessions.

HOPF DECRIES GOVERNMENTAL INTERFERENCE WITH BUSINESS

At Saturday's luncheon, Harry Arthur Hopf, managing partner of Hopf, Kent, Willard & Co., Management Engineers and Accountants, who returned recently from Europe, was introduced by Summerfield Eney of the Champion Paper Company.

Mr. Hopf commented briefly on his prepared address, "The Significance of Management Under Present Day Conditions," which is carried in the October issue of *THE PHOTO-LITHOGRAPHER*. He then discussed economic world conditions. He said, in part:

"Constantly narrowing profit margins, caused in large part by governmental interference with and regulation of business, make it imperative that sound principles of management be applied in increasing measure to the conduct of the affairs of every business institution which has the will to survive and still recognizes the profit motive as characteristic of the era in which we are living.

"It is difficult to speak in restrained terms of the blunderbussing of business that has been indulged in by the prophets of the "New Deal," and their radical efforts to reform the laws of economics and to impose upon productive endeavor an intolerable burden in the name of social progress.

"This country is suffering from the evil effects of over-organization; the bewildering number of new and unprecedented instrumentalities which have been brought into being have thus far failed of their purpose. The whole country, save that microscopic part which conceives itself to be called upon by some Messianic mandate to lead us to salvation, stands bewildered, discouraged, uncertain, and fearful when contemplating the evil effects of what has been wrought.

"It is of imperative concern to our welfare that by means as yet unutilized those who control our destiny will effect an early return to conditions of a simpler and sounder order, the re-introduction of which may give assurance of the ultimate possibility of flight from chaos. Management may be trusted to do its part, but since it can operate effectively only with respect to conditions over which it has control, its chief problem is to devise ways and means of operation successfully despite the impact of hostile conditions, in the hope that ultimate good may emerge from the vortex of new principles and opinions into which all of us have been drawn. Whether this hope will finally prove to be an illusion, remains for the future to disclose."

At the conclusion of his very interesting talk, the audience arose and accorded him a real hand.

ASSOCIATION ADDS SIXTEEN NEW MEMBERS

The following new members were voted into membership:

Alger Press Limited, Oshawa, Canada
 Crowson Printing Company, Columbia, S. C.
 Des Moines Litho Co., Des Moines, Iowa
 Druggists Addressing Co., St. Louis, Mo.
 Du Pont Printing Division, Philadelphia, Pa.
 W. S. Fisher Company, Greensboro, N. C.
 Franklin DeKleine Co., Lansing, Mich.
 Philip Hano Co., Inc., Holyoke, Mass.
 Honolulu Star-Bulletin, Ltd., Honolulu, Hawaii
 Frank H. Jones, Lake Pleasant, Mass.
 Litho Craft, Inc., Schenectady, N. Y.
 McCormick-Armstrong Co., Wichita, Kansas
 Miers-Bachman Litho Co., Allentown, Pa.
 Northern Lithograph Co., Chicago, Ill.
 Stein Printing Co., Atlanta, Ga.
 The Worthington Reminder, Worthington, Minn.



PAUL A. HEIDEKE, President
National Association of Photo-Lithographers

LATEST DEVELOPMENTS DISPLAYED

On both sides of the convention hall the exhibits of supply and equipment manufacturers were shown. The Association is indebted to the following, who thus co-operated:

Agfa Ansco Corporation
Ralph C. Coxhead Corp.
Eastman Kodak Company
Hammer Dry Plate Co.
Philip A. Hunt Co.
Merck & Company, Inc.
Thormod Monsen, Inc.
Harold M. Pitman Co.
Sinclair & Valentine Co.
Wesel Manufacturing Co.

In a few well chosen words, Merle S. Schaff, in behalf of the Association, presented to President Paul A. Heideke a traveling bag and an electric razor in appreciation of his long service to the Association. The Board of Directors presented the Executive Secretary, with a gold Hamilton watch engraved: Walter E. Soderstrom Executive Secretary National Association of Photo-Lithographers From His Board of Directors 1937.

OFFICERS AND DIRECTORS ELECTED

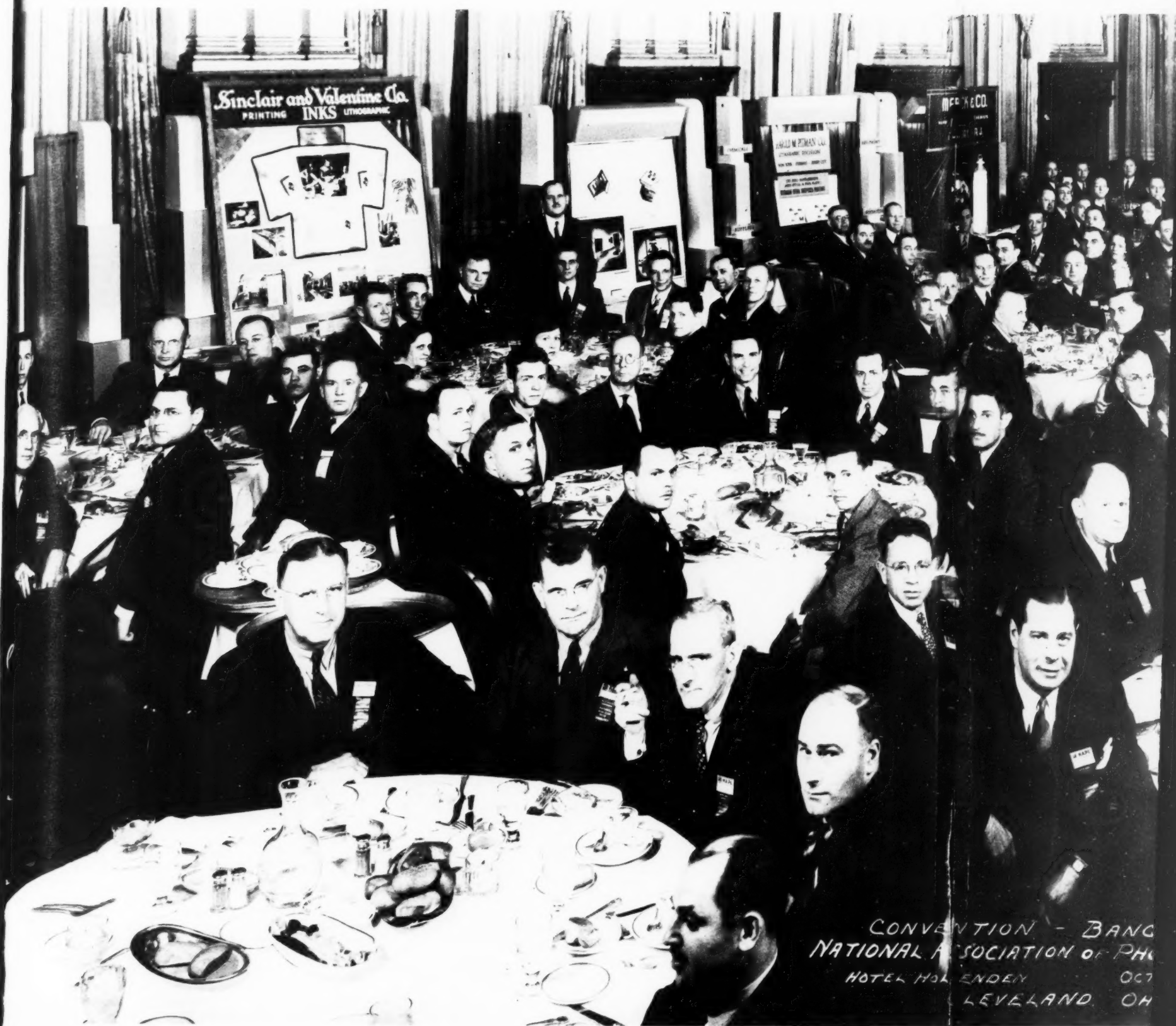
Officers and directors elected for the new year are:

PAUL A. HEIDEKE, President
The Washington Planograph Co., Inc.
1220 North Capitol Street, Washington, D. C.
RAY M. COLLINS, Vice President
A. H. Mathias & Co.
319 Fifth Avenue, Pittsburgh, Pa.
GEORGE E. LODER, Treasurer
The National Process Company, Inc.
75 Varick Street, New York, N. Y.
L. B. MONTFORT, Legal Counsel
218 Munsey Building
Washington, D. C.
WALTER E. SODERSTROM, Executive Secretary
1776 Broadway, New York, N. Y.

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Northern Lithographing Company
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The Washington Planograph Co., Inc.
1220 N. Capitol St., Washington, D. C.
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2060 Reading Road, Cincinnati, Ohio.

THE PHOTO-LITHOGRAPHER



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NATIONAL ASSOCIATION OF PHOTO LITHOGRAPHERS
HOTEL HOLLANDER OCTOBER 14-15 1937
CLEVELAND OHIO.



Code of Ethics of THE NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS

For More Honorable Competition

Recognizing the fact that in the conduct of our business no individual or concern in any community can act regardless of his neighbors and competitors, and that while the spirit of competition has been so deeply imbedded in the human heart and so keenly sharpened by the methods of everyday life as to cause it to enter into and influence every transaction, but at the same time believing there are methods of competition which are clean, honorable and legitimate, whereby we can compete without wronging others and without demoralizing the business in which we are engaged, this Association adopts the following rules, and recommends them to the photo-lithographers of the country:

Of Our Duty to Ourselves

STANDARD, TRUTH AND JUSTICE

1. The code of ethics best calculated to elevate the status of employing photo-lithographers must be evolved by the development of moral and intellectual manhood. We should, therefore, and firmly, resolve to test every transaction by the standard of truth and justice.

TRUTHFULNESS AND STRAIGHTFORWARDNESS

2. Take advantage of no man's ignorance, and see that employees are truthful and straightforward, and do not misrepresent nor overcharge the confiding.

HONORABLENESS

3. It is an absolute essential in honorable competition that we prove ourselves as honorable in every particular as we would have our competitors.

REPUTATION

4. Mix freely with intelligent and honorable members of the craft, and study their ways and methods, and

endeavor to get a reputation in the community as an intelligent, honest, first-class photo-lithographer, whom people can trust with their work without competitive bidding.

COST SYSTEM

5. Every photo-lithographic establishment should have a perfect system of ascertaining the actual cost of every job. It is in this way only that the business can hope to be relieved from the deleterious effects of guess prices. Such a system should not only ascertain the facts, but record them, so that they can be referred to understandingly, and the information immediately ascertained.

ACCURATE ACCOUNTING

6. No establishment should be satisfied with anything except the most exact and systematic bookkeeping, and all work should be checked up and charges proved before delivery, and the following made a standing rule: Never permit a charge to be entered on the books that cannot be proved by competent evidence in a court of justice to be a fair competitive price.

IMPORTANCE OF OVERHEAD

7. The expense of doing business, such as the wear and tear of material, interest on money invested, bad debts, rents, taxes, insurance, bookkeeping and all other items of expense, should be ever before our eyes, and we should never forget that these must be as surely levied on each particular job as its labor cost. Never, under any circumstances, should the minimum cost plus a fair profit be departed from. We should feel here a double restraint: in the first place, to cut cost is foolish; in the second place, it is wrong.

COMMISSIONS DEMORALIZING

8. On no account consent to pay commissions to bookkeepers, secretaries or others who have work to give out. It is demoralizing to both the giver and the taker. Money is passed without an equivalent. The agent is selling something he has no right to sell, and unless the photo-lithographer has a better conscience than is ordinarily met with, the commission is added to the bill, and the customer pays more than he should.

Of Our Duty to Each Other

WELCOMING YOUNG COMPETITORS

9. When a young competitor enters the ranks, welcome him as a new soldier to the field, and help him to any information and assistance which will enable him to overcome the difficulties we had so much trouble in surmounting. Rest assured you can make no better investment of the time necessary to do so, as his gratitude for the kindly consideration will often cause him to repay you in fourfold way and where you would least anticipate it.

HELPING LESS EXPERIENCED

10. It should be a duty and a pleasure to impart to our less experienced

competitors the knowledge we possess, so long as we are satisfied that the information generously given will be honorably used. In this way the element of ignorance, which does so much to demoralize the craft, may be partially eliminated and one of the most dangerous factors of competition destroyed. Remember that knowledge kindly imparted makes a business friend of one who would probably otherwise become a business foe.

YOUNG EMPLOYER

11. The young employer who starts with a small capital, and does most of his own work, should ever remember the honorable nature of his calling, and

never make the mistake of supposing that because he does his own work he can do it for less than his neighbor who employs fifty or more hands, with a long list of superintendents and foremen. He should rather insist that the work which he does with his own hands will be better done, and therefore he should receive more for it.

REJECTING WORK

12. When a photo-lithographer is offered work which he cannot do, his rule should be to decline it and refer his customer to the office that can do it, and not accept the work hoping to get some neighbor to do it for him and allow him a commission.

HELPING NEIGHBORS

13. Make no rebates or allowances to professional brokers or middlemen. If it is possible to help a neighbor out of an extra rush of composition or presswork, do it cheerfully, and divide with him the profit on the work. In this way the temptation to add to the facilities, oftentimes much too large for the work done in a given community, will very often be overcome, as idle machinery makes it almost impossible to maintain any standard of prices which may be adopted.

ESTABLISHMENT OF PRICES

16. Every establishment should have a thorough knowledge of what it costs to produce the work it sends out, and should determine what percentage of profit it will be satisfied with. Based upon those two items, it should establish its prices for all work undertaken, whether secured by competitive bid or without a price being named in advance.

PRICES BASED ON COST

17. A master photo-lithographer should not make estimates for work that he cannot do, and when he is devoid of experience in certain branches of photo-lithography, should not attempt to price them. It is always unsafe and often unjust to give prices upon a class of work for which the cost is not positively known and has to be guessed at.

ASK FAIR PRICE

18. Always have the courage to ask fair remuneration for any work offered, resting assured that it will be more profitable to be without a job than to secure one in which there is a temptation to resort to questionable methods in order to avoid a financial loss in its execution.

INTEREST IN OUR WORKMEN

23. In the conduct of our establishment it should be our constant endeavor to elevate the moral character and ameliorate the financial condition of our workmen who are engaged with us. This interest in their welfare is one of the best methods of preventing strikes and lockouts, which do such untold damage to both the proprietor and the journeyman.

JUDGING JOURNEMEN

24. While it should be the firm and unalterable determination of every photo-lithographer not to be dictated to by labor organizations when their demands are unfair, or which substitute the will of a prejudiced majority for the conservative teachings of common sense and justice, we should be

ESTIMATES FOR CHECKING

14. When estimates are asked for by any person on work done by another photo-lithographer, with plain intent to find cause for an alleged unfairness of the price charged, they should be invariably declined. It is not safe to criticize any price until one is in possession of all the facts. The work itself when done does not say whether it was done by night or by day, with a few or many alterations; these with many other unknown conditions may have controlled the price.

Of Prices and Estimates

REFUSE DETAILED ESTIMATES

19. Estimates calling for detailed specifications of separate value of the paper, composition, negatives, printing plates, presswork, binding, etc., should always be refused. These details the customer has no right to. They are the photo-lithographer's property, and to be swift in giving them away is one of the surest methods of provoking unfair competition.

WHEN ESTIMATES ARE REQUESTED

20. When requested to make estimates for work, or submitting proposals in answer to advertisements, the intelligent photo-lithographer should endeavor never to lose sight of the fact that the only price proper to make is the one that he would make were the work entrusted to him without any estimates having been requested on it. While carefully studying the subject with the figures of his previous year's business before his eyes, and while safely shielded from the exciting influences which arise when the estimate fiend is so close upon him—always con-

INJURIES BY ESTIMATES

15. In making estimates we are shooting arrows in the dark, and may unwittingly wound some of our best friends when we have least intended it. If the aggrieved person thinks he has been injured by an estimate which has taken away a valued customer, his proper course is to seek an explanation, and he should always begin with the supposition that the injurious price has been made in ignorance of all the facts, by thoughtlessness or by mistake.

soling himself when he loses the job with the thought that if he had encumbered himself with the work at a low figure he would have incapacitated himself from doing what may presently come along at a remunerative rate.

NAMES OF COMPETITORS

21. The master photo-lithographer should always contend that he is entitled, when asked for an estimate, to know the names of all who are to be requested to bid on the work. A glance at the names is often sufficient to show him whether it is worth the trouble to make the necessary calculations. He should also insist upon his right, if he desires it, to know all the prices offered for the work, and to whom and at what prices it was awarded.

BUYER AND COMPETITOR

22. The man who asks for a bid upon work, and before receiving it shows the figures made by another bidder, should be marked: it can be depended on, if he will show you another's bid he will show yours to a third party. He wants you to do the job, if you will do it for less than anyone else.

Our Duty to Our Workmen

slow to condemn the action taken by the journeymen, as it is possible that the influences controlling them may be more than they are able to resist.

DECREASE OF WAGES

25. Any action which tends to decrease the rate of wages should be looked upon with as much distrust as is an effort to increase them. We should always remember that the proper place for us to look for remuneration is from the business we do at a legitimate profit, and not from what we can save on the per diem of the wage worker, or from what we can make out of each other.

INAPT APPRENTICES

26. When an apprentice is taken, it should be considered our duty, if he

prove inapt or unteachable, to advise him to seek another line of trade. It often occurs that a poor photo-lithographer would have made a good blacksmith or shoemaker; therefore, either trade, as well as the boy, would be benefited by taking him away from the trade for which he is unfitted.

ASSISTING APPRENTICES

27. When we conclude that the apprentice we have taken is competent to learn the business and that he will learn it in such a manner as to reflect credit upon those who taught him, as well as to himself, no effort should be spared to make him all he should be as a workman and a good citizen. By so doing we add to our own happiness, his prosperity, and help the future generation of employing photo-lithographers along a very troublesome road.

ESTIMATING IN THE INDUSTRY.

Summary of Address by

WILLIAM J. VOLZ

Sackett & Wilhelms Lithographing Corp.

COVERING lithographing estimating as a subject is so broad as to include a thorough understanding of economic hour rates, production schedules and generally the entire budget cost system. It is not our purpose to review the economic hour rates or the budgeted cost system. It is, however, the desire of your committee to have questions propounded that generally cover details and effects common in the planographing plant. These questions can return the greatest effectiveness to each of us where an individual subject is used for estimating. The more simplified estimating of black and white reproduction has been classified and broken down into:

1—Plate cost including press make ready, press running cost, stock, finishing operations; variances from this procedure where there is preparation of work, half-tones, color make readies, or special stock.

Which of you people here employ cost records? How many of you tie your cost accounting into general accounting? Do you attempt to keep

a—Cost of each job in a combination plate.

b—Costs of making up negatives in the camera department.

c—Costs of combination job.

What value has this record meant to you?

Having covered more simplified form of estimating, we find in the more extraordinary order, conditions which have been responsible for great variances in prices that are given in competition. It is our offhand opinion that our competitor has merely "chiseled" to get in, or that he has probably made an error in omitting some element of cost. There are, however, several important considerations which the extraordinary order demands. These are:

Layout of job.

Advantages of one type press equipment over another, or probability of one plant having had an experience which causes them to sacrifice some of the economies to retain the business.

These considerations are, of course, in addition to the aforementioned "chiseling" or errors of omission.

Our association has sent out specifications and estimates on a type of work that we are considering now. The economic hourly rates that are employed in these schedules were compiled on the basis of average experiences sometime ago. We have all experienced increases in our wage costs and since the compilation of these statistics there has been a further increase in the form of Federal Social Security and State Unemployment Insurance Taxes. Therefore, the rates employed should be revised to take into consideration the present wage levels. By the present wage levels I refer to the standard wage levels of



MAJOR WALLACE W. KIRBY

Who Presided Over Technical Sessions

the Amalgamated Lithographers Union. There are other elements which have also affected the rates and it is my opinion that we should recommend to our Association the appointment of a committee to study and set up a Cost and estimating manual in keeping with present day costs and performances. Such subjects as depreciation of equipment, depreciation of glass negatives, press plates—aluminum and zinc, and what supplies should go into the economic hour rates are questions that a committee should take up in considering the basic hour rates that should be employed. Further, as this association is represented throughout the United States, there are some sections where wages or other costs may be out of comparison with the larger cities. Should plants in these locations in competition with plants in the city be entitled to use lower standards?

As estimating is by far the most important branch of our business, it is important that a qualified person be put in charge of such work, and that the management institute a check-up system to avoid errors which undoubtedly would become embarrassing if not found before the acceptance of an order. Our association has recommended certain estimating forms which should be used even for the more simple black and white jobs.

It is extraordinary to note that while there has been all sorts of books written on salesmanship, selling lithography, budgeting and costs, there is very little that you can find in concrete form on the subject of estimating. Mr. Soderstrom in his "Photo-Lithographers Manual" has tried to bring together all the principal considerations, which makes this book a very valuable reference in any plant.

REPORT OF PRESIDENT HEIDEKE

Delivered at Fifth Annual Convention of the National Association of Photo-Lithographers

AT THE beginning of the fifth year of the existence of the National Association of Photo-Lithographers, it once again becomes my pleasure and duty to report to you on the state of affairs of our Association.

Apparently, we were born under the guidance of a lucky star, for as many of you will remember this Association came into existence amid tumult and much wrangling brought about by the long since deceased NRA. It was predicted by some that our demise would take place soon after the invalidation of the NRA, but through some good fortune and the untiring efforts of a group of far-sighted, unselfish men, our Association and its purpose still lives, and is gathering momentum and attaining stability to a degree that is most satisfactory to those of us who had only hoped in the beginning to perpetuate our purpose and aims in order that our branch of the graphic arts industry might avoid practical annihilation.

Without our national association we would be operating our plants with far greater difficulties and under burdens more difficult to bear than those that we now have; and as we all know our present moments of discouragement are all too frequent occurrences.

Our purpose, aims and efforts are not based on personal selfishness. Our purpose and efforts are not a mere matter of words—neither are they an echo of the romantic ardor of a generous and idealistic mind, but a very real, practical, and sincere purpose which we ultimately hope will accomplish what cannot and has not been accomplished in any other way.

To define the purpose and the reasons for our existence is as simple as the ABC's. Here it is:

To aid, inform and enlighten the members and workers, and to improve the service, the product and stabilize the profit of our industry.

I don't believe this definition indicates that there are

any "isms" connected with our Association; not even the much courted idealism.

Our purpose would be precipitated into mysterious depths of nothingness unless its practical application were pursued. Instead of pledging ourselves with enthusiastic fervor with words, like honey melting from the comb, we have attempted to put into practical operation the aims and purposes to which, as an organization, we are dedicated.

In return for your dues paid to the national association you obtain more than a mere membership. You are buying at a very low cost educational insurance, a library of information with access to an authoritative source of information which will be of assistance to you and future generations in the constant improvement of our product to a degree that reasonable profits can be expected.

We have not been content to simply inform with mere words; but our secretary has sent out specimen of jobs actually completed by our process to our members with detail specifications rendering a time and cost analysis on the specifications set forth. In this way each member has the opportunity to check against his production records and estimate sheets to obtain a comparative analysis for his own plant.

This practice of sending out estimating series has become very popular, and there is not the slightest doubt in my mind but that it has added quite a few dollars of legitimate profit to a number of our member plants.

Our Association is indebted to several of the member plants for their permission to send out these completed jobs, and their aid in permitting their cost sheets to be analyzed for the benefit of the industry.

Our secretary has provided the members with cost system forms, and cost data covering the various opera-

(Continued on page 29)



Another Technical Session shot. That little sign up there says: "Plate Makers must sign their initials to each plate they make."

There's a good suggestion for other plants.



One of the few moments when a group attending a technical session were not deeply absorbed in a demonstration. Intense seriousness was the dominating spirit most of the time.

NEW LEGISLATION IN ITS RELATION TO THE PHOTO-LITHOGRAPHIC INDUSTRY

By CAPTAIN L. B. MONTFORT

AT the last annual meeting in Atlantic City there was a great deal of new Federal legislation, directly affecting industry as a whole, to talk about.

We had the Robinson-Patman Act and its uncertainties, the Walsh-Healy Act and its possibilities, and the National Labor Relations Act and its potential labor problems.

Another year has passed and we have had another election, a new Congress, a year's experience with the various laws above referred to, and some proposed new Federal legislation that has potentialities, insofar as industry is concerned, that might also directly affect the photo-lithographic industry.

The photo-lithographic industry, being primarily an intrastate as distinguished from an interstate business, is, to a large extent, not affected by many types of Federal legislation other than tax legislation. However, there is a general tendency on the part of Congress and the courts to bring into the field of interstate commerce, and therefore under Federal jurisdiction, many activities which previously have been considered intrastate. This is especially true where the rights of labor are involved. Witness the Jones and Laughlin decision of the Supreme court wherein it was held in substance.

"The Congressional authority to protect interstate commerce from burdens and obstructions is not limited to transactions which can be deemed to be an essential part of a 'flow' of interstate or foreign commerce. Burdens and obstructions may be due to injurious action springing from other sources. The fundamental principle is that the power to regulate commerce is the power to enact 'all appropriate legislation' for 'its protection and advancement' . . . ; to adopt measures 'to promote its growth and insure its safety' . . . ; 'to foster, protect, control and restrain.' Although activities may be intrastate in character when separately considered, if they have such a close and substantial relation to interstate commerce that their control is essential or appropriate to protect that commerce from burdens and obstructions, Congress cannot be denied the power to exercise that control."

Practically all of these bills failed.

There was a great deal of legislation introduced in the past Congress that, if passed, would directly have affected industry as a whole, including the photo-lithographic industry.

There was the Black-Connery Wage and Hour Bill.

There was the O'Mahoney Federal Corporation Licensing Bill.

There were suggested changes in the Social Security Act.

At the end of the session we find a very limited number

of bills that became laws directly affecting industry in the sense that they provided for the regulation control or supervision of industry by the Federal Government.

There was passed a bill, H.R. 7274, enabling the Department of Labor to formulate and promote the furtherance of labor standards necessary to safeguard the welfare of apprentices, etc. This law is not specific in its terms and is more in the nature of a promotional effort to secure the cooperation of employers and labor in developing and setting up apprenticeship standards.

S. 2705 was passed providing for an unemployment census of which you have heard a great deal in the last few days.

In my opinion, every effort should be made by all industry to cooperate with the Federal Government in trying to make this unemployment census a success.

H.R. 7472 was a rider attached to the District of Columbia Revenue Bill. It is known as the "Miller-Tydings Bill" and amends the Sherman Anti-Trust Act to prevent conflict with state fair trade practice laws which in turn permit agreements between manufacturers and their distributors or retailers as to resale prices on identified merchandise sold under a trade mark or brand. This law further provides that any such agreements between competitors or between manufacturers or producers, or wholesalers or brokers to fix prices are still unlawful and punishable by penalty of fine of \$5,000 or imprisonment for one year or both.

This is the so-called "Resale Price Maintenance Law." It is only effective in the case of identified merchandise sold under a trade mark or brand name and in substance permits the manufacturer of a trade marked or branded article to enter into an agreement with a distributor or retailer that the article will be sold at an agreed price. It does not sanction agreements between manufacturers or producers or wholesalers to sell at a fixed price. Such agreements are still unlawful.

There is the further and fundamental limitation to this legislation in that it merely sanctions agreements between manufacturers and distributors etc., in those states which have resale price maintenance laws.

There are 42 states having what are known as fair trade practice laws. Approximately 23 of these states follow the so-called California fair trade practice law and 19 of the states have laws that are modeled after the so-called National Retail Drug Association law.

The only states which do not have fair trade practice laws at the present time are Alabama, Delaware, Mississippi, Missouri, Texas, and Vermont.

(Continued on page 51)

PHOTO-OFFSET CAMERA OPERATIONS

By THEODORE S. HILLER

The Third of a Series of Articles on Camera Operations

CORRECT exposures are absolutely essential for the production of satisfactory negatives, although the test for correct exposures is dependent upon correct development carried on in a safelighted darkroom.

Because of the importance of this section of any photolithographic establishment, much consideration should be devoted to the intelligent planning and arrangement of the darkroom for the convenience and efficiency of the camera operator. Although the average darkroom may appear as a dingy, out-of-the-way place, careful attention reveals that the most efficient operator will be found in a darkroom of comfortable dimensions. The accepted minimum size of a darkroom is 6 feet by 8 feet. However, where a darkroom type camera is employed, the correct size is nearer 8 feet by 10 feet. The darkroom types of cameras, or those on which the focussing of the image and positioning of the sensitive paper, film or dry plate is completed within the confines of the walls of the darkroom, are recommended for efficient production work in a photo-offset gallery. The darkroom then appears as a giant anterior plate or film holder with this type of camera inserted in its wall.

The entrances to this room should be either hinged or sliding doors, arranged with sufficient space between them to allow the operator to stand and close one door before entering the other door. Where more space is available a baffled type entrance is recommended, because it allows for some ventilation and easier access by the operator, especially if his hands are laden with negatives.

Ventilation of the darkroom is another factor which requires careful planning for best photographic procedure. The most ideal condition for the camera operator to work in would naturally be an air conditioned darkroom, where the temperature would remain constant at 70° Fahrenheit and fresh air would be plentiful. Owing to the cost of such an arrangement this condition seldom exists unless the building in which the establishment is housed has the system built in as a permanent fixture. The second best system of ventilating can be accomplished by the installation of a suction fan and an inlet for fresh air. If the size of both are adequate, a constant change of air will take place, but not sufficient to stir up any dust.

The following diagram, which is taken from the Eastman Kodak Booklet "Commercial Photo Finishing," presents a simple method of ventilation. This provides an inlet for fresh air, located near the floor, and a suction fan exhaust near the ceiling to draw off the impure air. See figs. 1 and 2.

The proper position of the ventilating inlets which allow the air currents to enter the room should be given much thought in order to avoid undue discomfort and exposure to severe draughts. Outside sources of fresh air should be obtained and the discharge of vitiated air should be at some distance from the source of fresh air. See fig. 3.

The next diagram provides the simplest method of ventilation and is yet light-tight. See fig. 4.

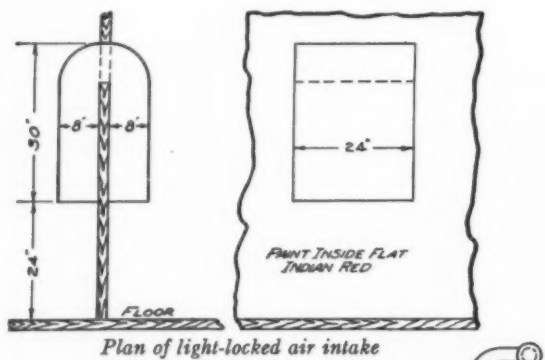


FIGURE 1.

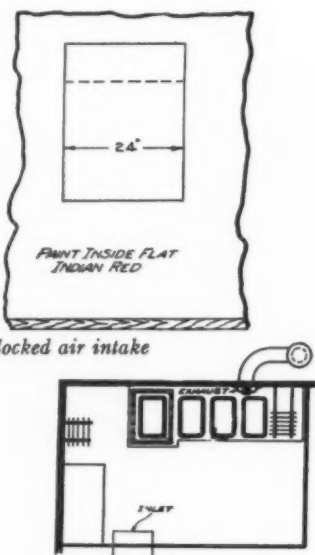


FIGURE 3.
Suggested location of inlet and exhaust. Exhaust should be on outside wall

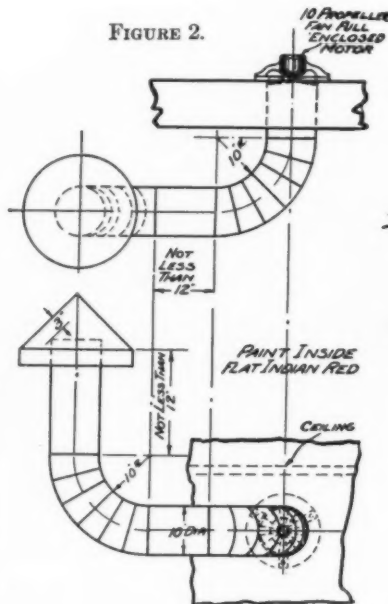


FIGURE 2.

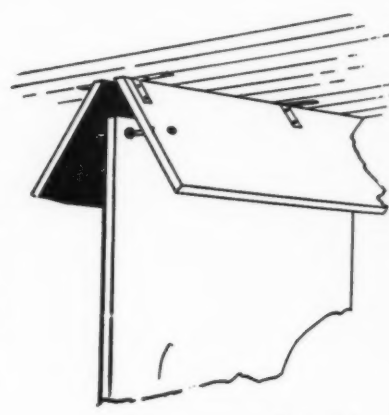


FIGURE 4.

The old idea of painting the ceiling and walls of the darkroom black has long been put into discard by the progressive minds of the industry. White or light gray or green walls are now used and these are much pleasanter surroundings for the operator than the morgue-like chamber which was formerly supposed to produce a safer darkroom.

Although the black walls would not reflect any stray light, they were extremely depressing to the operator. If any stray light does enter the darkroom the leak should be closed. Since the illumination from the safelight is naturally safe, its reflection can do no harm to a sensitive surface.

Finishing the walls of the darkroom with a washable paint produces an additional advantage since the darkroom can be kept cleaner. As cleanliness is a virtue of every enterprising photographer, dirty walls and floors would be a menace to his ambitions. The floors of the darkroom should be painted with waterproof or deck paint, or covered with linoleum which can be scrubbed. Chemicals which are spilt on the floor, especially hypo, are the answer to the pinholes and otherwise dirty negatives. These troubles can be remedied simply by removing the grime and the dirt from the floors.

Chemicals, as a rule, should not be stored in the darkroom, but outside in a cabinet. Only those which are used in the darkroom should be kept there, in small quantities. Shelves should be few and preferably under the sink.

The sink should be of a size which will permit the largest trays to stand side by side in it, with some space (at least two inches) around each tray. Although wooden sinks are most popular, well built sinks of stainless steel or Vermont slate are available. Wooden sinks are most generally constructed of cypress planking and bolted together, as shown in the following diagram:

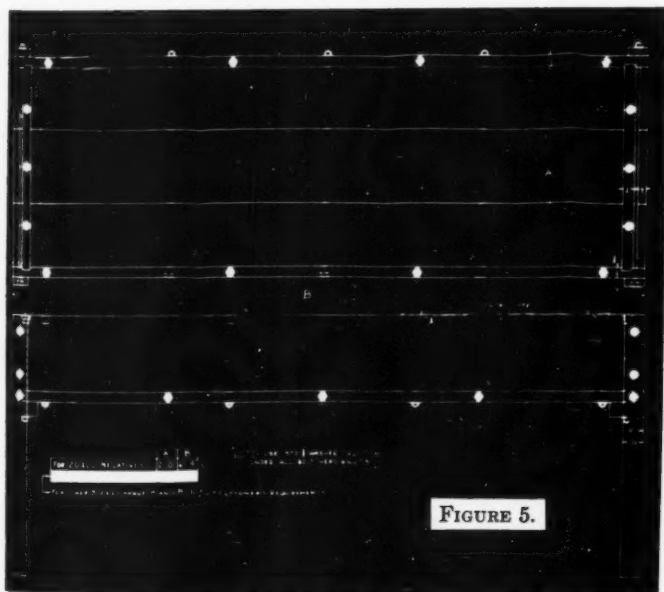


FIGURE 5.

The wooden sink should receive a preliminary soaking before drawing up the bolts, so as to insure it against future leaks. By providing the sink with an overflow tube, which is inserted in the drain and extends about $2\frac{1}{2}$ " to 3" above the inside bottom of the sink, some water can be retained in the wooden sink at all times, and thus keep the planking swollen and watertight.

Darkrooms constructed along modern lines many times include an illuminated glass top wash up cabinet, placed adjacent to the darkroom sink. It is not necessary to have this in the darkroom and it can be built outside the darkroom and thus permit another operator to wash the negatives while the camera operator is developing or exposing. The darkroom sink should be so arranged as to allow the operator to work from left to right, with the wash up operation on the ground glass top of the cabinet at the right end of the sink or near the fixing or washing tray.

The wash up cabinet top should be large enough to accommodate with ease the largest negative used in the camera. The ground glass top should be illuminated from the floor of the cabinet, so as to allow the operator to judge the even density and the clarity of the negative. The ground glass should also have pitch enough to drain off the water and the reducing solution into the sink. At the high end of the cabinet a pipe perforated with a line of holes $1/16$ " in diameter and about $1/2$ " apart should be connected with the cold water supply. A foot valve in the water supply line provides a convenient method of flushing the reducing solution off the negative, thereby retarding the action of the chemicals.

Also, a drop light above the wash up cabinet is advantageous, since the operator can conveniently judge the strength of his solutions and the manner in which they are functioning. All electrical switches and sockets should be made of porcelain or hard rubber, in order to insure against electrical hazards.

The illumination of the darkroom should be adequate for safe and economical workmanship. The type of safelight depends upon the classification of the sensitive material used in the darkroom. The following table of safelight, their color, the lamp sizes and the type of sensitive material with which they are used, is provided as follows:

Safelight	Color	Lamp Size	Sensitive Material
Series No. 0000A	Yellow or Yellow Green	25-40 Watt	Vandyke or salt paper
Series No. 1	Light Red	15-25 Watt	Color blind or regular
Series No. 2	Ruby Red	15 Watt	Orthochromatic
Series No. 3	Dark Green	Direct at 3 ft. 10 Watt	Panchromatic
Series No. 3	Dark Green	Indirect 15-25 Watt	Panchromatic

The next illustration, taken from an Eastman Kodak Company catalog, shows the various types of lamphouses which can be employed in the darkroom. The Wratten, Safelight Lamphouses Nos. 1 and 2, can be hung above the sink and provide a convenient means of safelighting. An

8" x 10" safelight is required. The Kodak Safelight Lamphouse No. 3 is adjustable to any angle and requires a 5" x 7" safelight. The Eastman Lamphouse No. 4 can be suspended over the contact frame or over the film cabinet and provides a simple and safe means of illuminating.

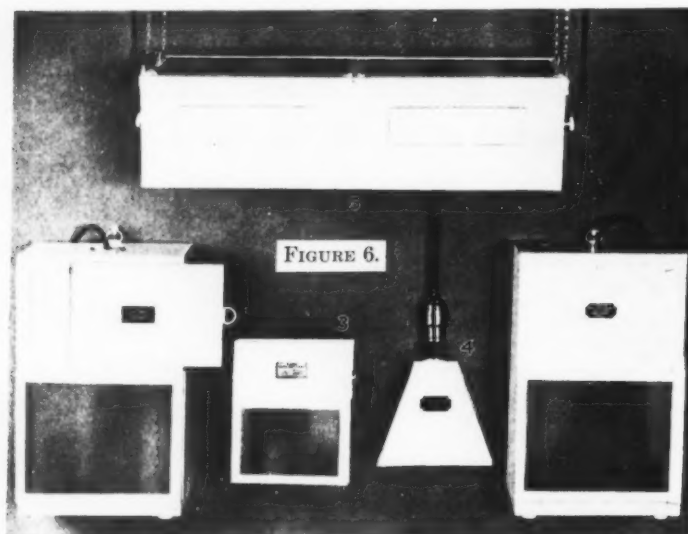


FIGURE 6.

A very compact and convenient means of storing the film paper and dry plates in the darkroom is shown in the following illustration by courtesy of the Valette Litho. Equipment Co.

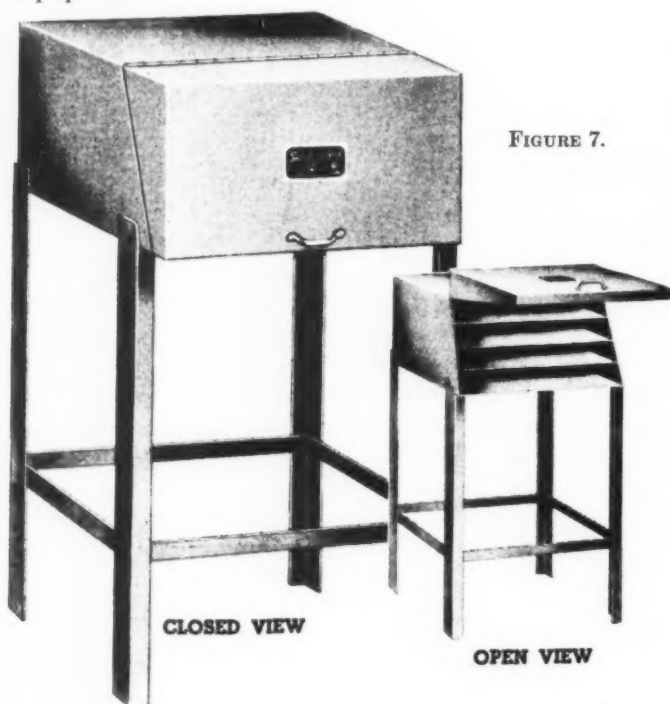


FIGURE 7.

It seems hardly necessary to state that the time consumed in the efficient planning and the laying out of the darkroom, and the expense involved in equipping the darkroom, will be repaid many times in production of good negatives. As the negative is only a means to an end, the Q. E. D. of the operations in the darkroom simmers down

to the axiom "A good beginning means a successful conclusion."

After exposure, development is carried on and the latent image on the sensitive media is converted into a visible image. A selective reaction takes place and the exposed silver salts, halogens, included in the emulsion are reduced by the reducing agent or agents to a new form. The assertion made above, that one or more reducing agents are utilized in the developing solution, is borne out by the fact that some developing formulæ call for one agent, such as hydroquinone, whereas other formulæ require an additional agent so as to activate the formation of the image. Strict attention must, therefore, be paid to the compounding of the developing solution. As most manufacturers of photo-sensitive material recommend a particular formula, wise counsel will agree to their advice, since each manufacturer is earnestly endeavoring to help the photographer produce worthwhile negatives in order to remain on the favored order list.

Good negatives can only be produced with the aid of a good grade of chemicals, compounded along scientific and practical lines by a careful worker. Although the chemical solutions can be purchased ready mixed for dissolution in water, the usual practice is to weigh out the chemical ingredients from a bulk quantity of each, and dissolve each substance separately in water according to the chemically tested formulæ.

The following are several chemical rules to observe for the production of uniformly active solutions:

1. Use good tap water or distilled water, of the proper temperature.

The temperature should preferably be 100° F.-125° F., for the absolute dissolution of each ingredient. When cold water is specified the temperature is usually 60°-70° F.

2. Weigh the chemicals out correctly and measure the liquids with a graduate.

The following steps are recommended when weighing out dry chemicals on a studio scale:

- a. Fold two equal squares of paper for each pan of the scale.
- b. Balance the pans, so the pointer is opposite the zero mark on the base, by turning the equalizing weights (small weights under each pan).
- c. Place the correct weight in the right hand pan (scale being the operator).
- d. Slowly place the dry chemical in the left hand pan.
- e. Add enough dry chemical to balance the pans.
- f. Remove the paper holding the chemical and pour the chemical into the water.
- g. After all chemicals have been weighed, clean the scale of all loose chemicals and place the scale in a box.

Liquids are most generally measured by the apothecaries fluid measure and it is this system which is most generally used when the formulæ are written. The accom-

panying tables are presented in order that a conversion can be made from apothecaries measure to the metric measure and vice versa.

agents are rather inactive as developers when used alone, and since they normally are either neutral or slightly acid, they are compounded with other chemicals in solution.

Conversion Table for Units of Volume and Weight

TO CONVERT FROM	MULTIPLY BY							
	To Fl. Oz.	To Pint	To Quart	To Gallon	To C.C. or G.	To Ltr. or Kg.	To Grain	To Oz. Av.
Fluid Ounce.....	1.00000	.062500	.031250	.007813	29.5736	.029573	.....	.....
Pint.....	16.0000	1.00000	.500000	.125000	473.177	.473177	.....	.....
Quart.....	32.0000	2.00000	1.00000	.250000	946.354	.946354	.....	.....
Gallon.....	128.000	8.00000	4.00000	1.00000	3785.42	3.78542	.....	.....
Cubic Centimeter or Gram.....	.033814	.002113	.001057	.0002642	1.00000	.001000	15.4323	.035274
Liter or Kilogram.....	33.8140	2.11337	1.05669	.264172	1000.00	1.00000	15432.3	35.2739
Grain.....	.....	.....	.....	.....	.064799	.06479	1.00000	.002286
Ounce Avoirdupois.....	.....	.....	.....	.....	28.3495	.028350	437.500	1.00000
Pound Avoirdupois.....	.....	.....	.....	.....	453.593	.453593	7000.00	16.0000

Reprinted from Chemical and Metallurgical Engineering, Vol. 24, page 434 (1921). Courtesy of E. I. DuPont de Nemours & Co.
NOTE: The small subnumeral following a zero indicates that the zero is to be taken that number of times; thus, .0₁1428 is equivalent to .0001428.

For example: To convert 2½ av. oz. to grams, multiply 2½ by the factor 28.3495 or 70.87 grams.

Weight	
15½ grains	= 1 gram
437½ grains	= 1 ounce avoirdupois
7000 grains	= 1 pound

Volume	
60 minims	= 1 fluid dram
8 fluid drams	= 1 fluid ounce
16 fluid ozs.	= 1 pint
128 fluid ozs.	= 1 gallon

3. Dissolve each chemical in its proper order, as suggested on the formula sheet. The reasons for strict adherence to this rule can be appreciated when the purpose of each chemical is reviewed and the reactions with other chemicals are known.

Basically, the purpose of the developer is to continue the reduction of the exposed silver salt to metallic silver. Although there are differences of opinion about this reaction, most experiments reveal that the image is composed of a deposit of an entirely different substance from that which was used to sensitize the emulsion. Where the reflected light has been the strongest or the exposure has been longest, the tendency toward the reduction to silver metal is more pronounced. The addition of a developing bath continues the reduction until a visible image appears in the emulsion. This is definitely the result of the action of such substances, known as reducing agents, for example, hydroquinone or metol.

The choice of the proper type of reducing agent depends upon two factors:

1. It must confine its action to the latent image, which is composed of exposed silver salts, but avoid any change on the unexposed silver salts.
2. Its action must be controllable. Because reducing

The life of the reducing agent is also short when it is dissolved alone in water. This characteristic is due to the greediness with which it attracts the oxygen from the water to itself and becomes discolored. To overcome the strong attraction of the reducing agent for the oxygen, an alkaline salt which has an even greater affinity is compounded in the solution, preferably before the reducing agent is dissolved, in order that most of the oxygen may have been absorbed. The salt used is usually sodium sulphite, which is noted for its readiness to absorb oxygen and act as a preservative of the reducing agent and overcome the discoloration in the solution.

Preference is sometimes given to an acid salt for its preserving action. Among the acid salts, the bisulphites and meta-bisulphites of sodium and potassium are chosen by most manufacturers. These salts are most generally employed when two solution formulæ are written. The preservative and reducing agent are combined in one solution, while the alkali is compounded in another solution. This combination is possible because of the natural inactiveness of the reducing agent when it is in an acid solution.

(To be continued in the December issue of THE PHOTO-LITHOGRAPHER)

IN APPRECIATION OF COOPERATION

Little did the group who witnessed the recent excellent demonstration, given by the Eastman Kodak Company at the plant of the Copifyer Corporation of Ohio during the Cleveland convention, realize what went on behind the scenes to make the affair possible—no less successful.

The camera used, we discovered, was the latest 40" Rutherford process-type. This unit, along with a Rutherford Composing Machine, was scheduled for shipment to Copifyer about the 15th of October, but by throwing in all available man power and burning the midnight oil, the Rutherford Machinery Company managed to see them shipped in plenty of time to be installed in Cleveland. So they thought, but the best laid plans of men and mice—you know the rest—for en route to

Cleveland from New York by special motor truck there was a collision and machines did not arrive until Wednesday.

To make a short story longer, the Copifyer crew and two Rutherford machinists worked straight through for twenty-four hours and had it ready in the nick of time.

So while the demonstration actually took place on the Camera as scheduled, the wiring by the electricians was being completed on the Rutherford Composing Machine. The latter machine, a Rutherford precision-model for plates up to 48" x 59", we believe was also in operation for the Saturday demonstration.

LOOKING AHEAD WITH THE LITHOGRAPHIC INDUSTRY

An address by H. A. Porter, vice-president in charge of sales, Harris-Seybold-Potter-Company, at the annual banquet of the National Association of Photo-Lithographers, Cleveland, Ohio, October 15, 1937

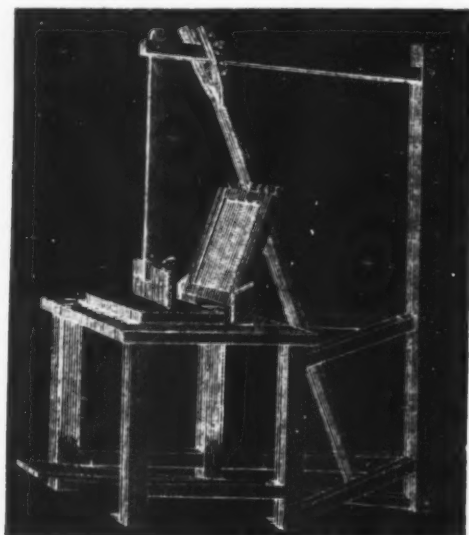
"LOOKING ahead with the lithographic industry" is a subject in which all of us are vitally interested. It sums up in a few words just exactly what you, as individuals, and an organization, have been doing. I think that congratulations are due your association and all of you as individual members, on outstanding achievement during the past year.

Your Manual is deserving of the highest praise. Your monthly publication, *THE PHOTO-LITHOGRAPHER*, is the type of trade paper which has a real place in today's business. I know it is read in our organization and I feel that a sincere word of congratulation to Walter Soderstrom is due him because it is richly deserved.

What is the future of lithography? Who of us can tell what it will be? Certainly we have not reached the apex—we have barely scratched the surface.

Are the things that you, we, and the industry as a whole, are doing revolutionary? I hardly think so. The discovery of lithography in 1797 by Sennefelder was really something revolutionary. Since that time it has been progress, and sometimes mighty slow progress at that.

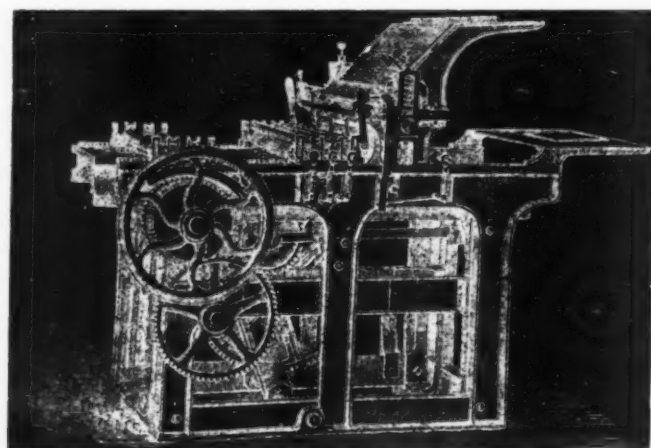
In the slightly over one hundred years since the discovery of lithography to the advent of the offset press early in the twentieth century—1905 or 1906—progress was slow indeed, but it was sure, and there is no question but that real artisans, capable technicians and efficient management were developed.



This is a lithographic press of more than a hundred years ago.

We saw the development of the stone press, the direct rotary, and with it went the increase of color work done in many colors with painstaking effort on stone, until it was the lithographer who was doing all of the color work. In the latter part of the nineteenth century—the 1880's and 90's—the three- and four-color process half-tone was developed and with its perfection more and more color work was lost to the lithographer and went to the letterpress method.

The early years of offset were trying years, and it is only by reason of the application of sincere, painstaking effort on the part of those engaged in the lithographic industry that offset lithography occupies its present position. It is due to this fact that the lithographer has regained much of the color work lost some time ago and that, as the months and years roll by, is regaining more and more of the work which rightfully should be done by lithography.



The allied industries—papers, inks, rollers, plate-making processes, as well as press manufacturers, have worked hand in hand to contribute their very best through chemical and mechanical research, all for the good of the lithographic branch of the graphic arts industry.

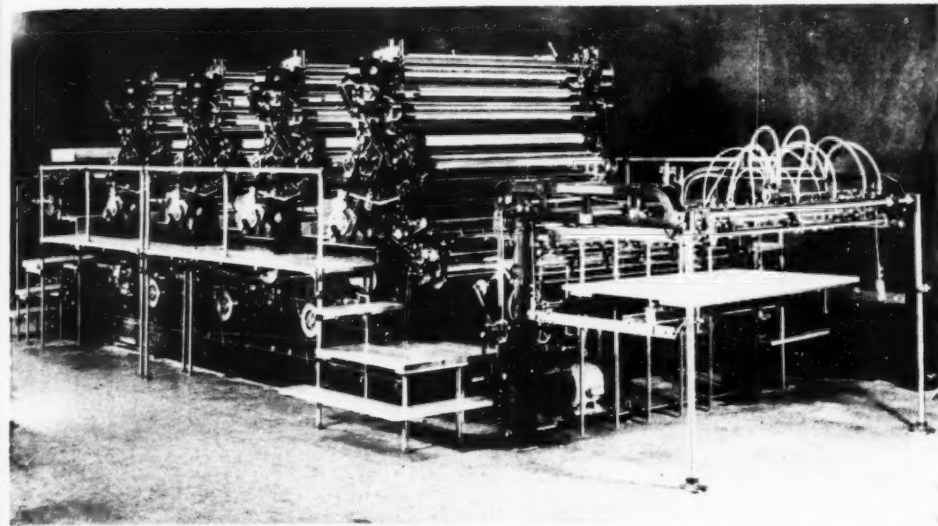
The future of lithography depends materially upon the vision, the far-sightedness and the action that the industry as a whole exercises.

Looking ahead, it is perfectly sound to first analyze the situation with reference to its potential accomplishment. It seems to me that printing, in its development, was the

THE PHOTO-LITHOGRAPHER

outgrowth of the individual's desire to give some measure of prominence to his wants and needs, to his thinking, and to his feeling: in other words, the desire of the individual to convey his thought and to give it prominence largely accounts for printing. Of course, I use the term "printing" here in its broadest aspect—as inclusive of all methods of putting ink on paper.

Printing, as a matter of fact, has only one commercial competitor in conveying human thought—the radio. There is no time here to discuss the relationship of printing to radio as each affects the other, particularly in the advertising field, but it is a matter worth thinking about.



*What is the future of the
lithographic press, the
lithographic industry?*

My own conclusion is that, in the same way in which the various printing methods have together furthered the advancement of the graphic arts and have not proved destructive to one another, so radio and printing will do. Radio should create a definite demand for many more splendid mailing pieces, which could be beautifully produced by lithography, to follow the more or less temporary sound appeal of the radio by something beautiful, definite and tangible.

To my mind there is a real selling job to be done on the part of the graphic arts to tie radio and the production of mailing pieces definitely together to the decided advantage of both the graphic arts and radio. They should be able to do much to advance one another, which is simply another way of saying that we should look ahead with confidence.

Before mentioning some of the specific things which directly affect the lithographic industry, this thought may be pertinent—you know, of course, that there is a definite relationship between literacy and printing development. Consider the situation today, with more people able to read than ever before in the history of the nation.

In our colleges alone, there are registered one and one-quarter million students. The trend in the United States is toward the advancement of education. Our grade schools and high schools are crowded, as well as our colleges. We

There are still additional factors which must be considered in looking ahead with the lithographic industry—there is the increased tempo of business, the higher scale of living, the breakdown of community isolation, largely due to the automobile. These existing factors are playing and, in my opinion, will play an ever-increasing part in giving pre-eminence to the universal method of communication—printing.

The thing to remember is that the printed word continues to give a record to the thought, and, unlike the voice over the radio, is not limited to the instant of speech.

I feel perfectly free to talk to you with frankness because you, as an association, have had the courage and the determination in all of your activities to disseminate as much knowledge as has been possible.

You have served as a clearing house for improvement in method and in the marketing of the lithographic product—a branch of the business which is deserving of more emphasis than it has received. The compilations of cost data have been valuable, in connection with your work of looking ahead with the lithographic industry. Like the company I represent, your policy has been one of pioneering and the dissemination of knowledge of development.

(Continued on page 72)

Open the Door with a Good

PRESENTATION IDEA

By EDWARD C. STERRY

BACK in the "drummer" days salesmen were made, not born. A wide checkered suit, a red hot tie, long cigar, and not forgetting the bright flower in his lapel. Such a combination *made* a salesman in those days. After all, he *did* seem to have a certain personality, an attribute which has never ceased to be a virtue, both in the spoken word and the printed message.

Let's dig up some of the old fundamentals of selling and apply them in a modern way to printed advertising. The application of these time-honored principles puts advertising on the road to old-time pulling power.

In building and selling the printed word through any of the graphic arts methods, there is no more effective selling tool than a well-executed layout—a means of presenting a customer an idea or plan in a quickly understandable visual form.

The photo-offset salesman calling on his trade "asking" for an order merely clutters up his customer's office and has no right to demand his prospect's time because he (the salesman) is doing nothing constructive. He is merely gathering up the crumbs from the table, so to speak. And no salesman ever built an account on leftovers.

Of course, there are some good salesmen selling photo-lithography to an established clientele, yet who do *not* sell on the basis of creative ideas. The percentage of idea salesmen in the photo-offset field is greater, I believe, than in other branches of the graphic arts because the process offers so many opportunities for the building up of ideas and the creation of advertising pieces at a minimum cost.

Photo-offset is a golden opportunity for any salesman. With the cost of cuts practically eliminated, no composition (if the customer so desires) and the opportunity to clip pictures and material from endless sources, photo-lithography can be called the answer to the salesman's prayer.

Many salesmen who face their prospects empty-handed feel sort of uncomfortable in their presence. A good presentation idea will surely reverse this feeling. But some will argue that you must first make a call to get acquainted and ascertain some facts about the business before you can intelligently prepare an idea for your customer. This is not always true.

*The fifth in a series of articles on layout.

Here is an idea that will help break down that first barrier without the so-called missionary call.

John Battman has been given a new account. He writes the buyer to the effect that he is going to call on him to present him with a printing suggestion which he believes he can use. In the letter he asks for an appointment. If the letter is well prepared and written on attractive stationery, the chances are John Battman will get an immediate reply—and certainly on the prospect's stationery. This gives the salesman some material—copy for a letterhead—an item which every firm uses continually. With some previous correspondence and two or three ideas for a new letterhead in his hand, John Battman feels that he has at least opened the door of a new prospect.

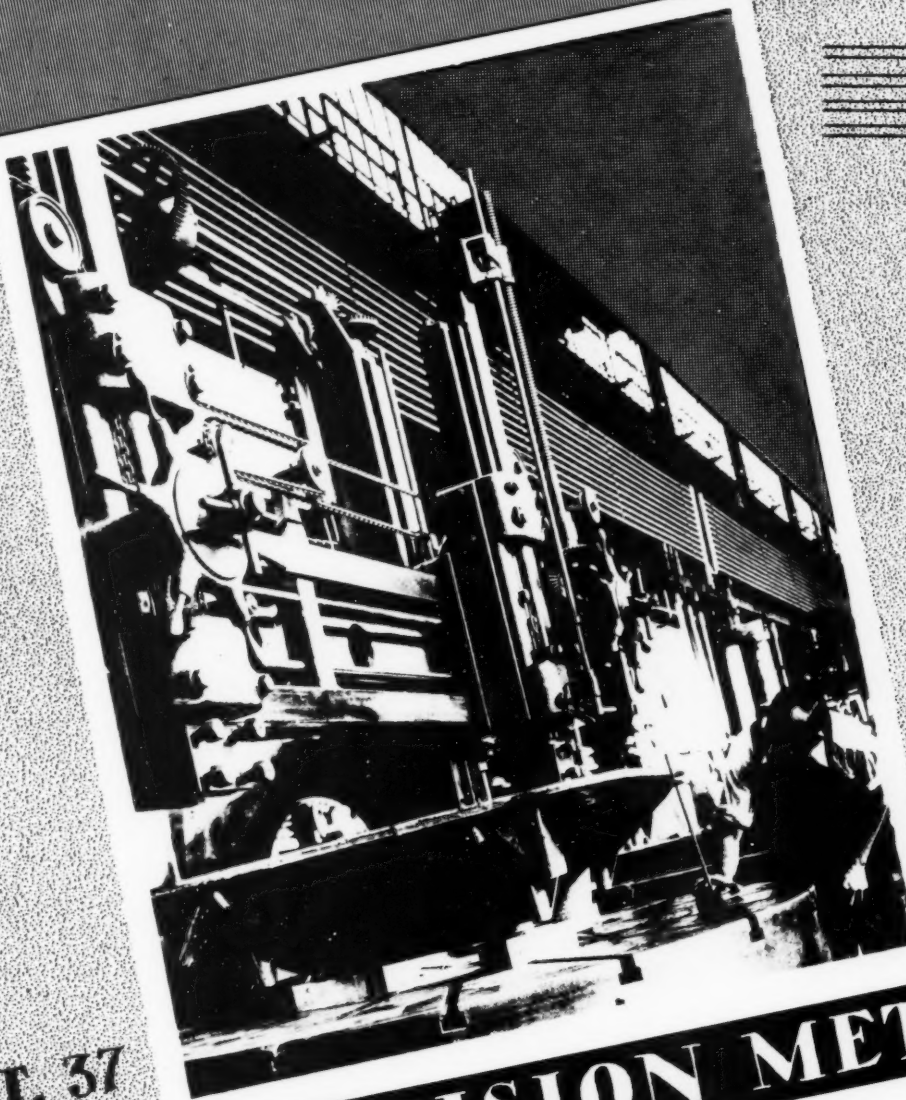
Of course, if the concern makes no reply to the letter, the salesman can still get some information from the telephone book and perhaps call up and obtain some further information sufficient to build a letterhead. And even if the prospect has just bought a supply of stationery, sooner or later he will be in the market for more.

This is one of the simplest ways of breaking down sales resistance. And it gives the salesman an opportunity to make a presentation (letterheads) in which the prospect is always interested.

In photo-lithography, as in all other lines, there are salesmen—and order-takers. There are fellows who timidly ask: "do you want any printing today?" And there's the chap who somehow finds his way to a spot in front of the executive's desk and learns something about his merchandising set-up and finally sells him an offset job designed to increase his sales or to promote his service. Bringing the matter closer to home, we have on the one hand the fellow who sells you a can of offset ink, and on the other hand a salesman who suggests ways of selling more lithography so that you will use more ink.

The salesman who sells photo-lithography from the merchandising angle—that of increasing his prospect's or customer's business through the printed word—must possess some layout and copy ability, or else receive the backing of a good idea man. It will be found more profitable for the house to give their creative type salesmen the support of a good idea man. Such a fellow can do preparatory work for two or three salesmen, while the

THE PHOTO-LITHOGRAPHER



OCT. 37
VOL. 4 · NO. 10

PRECISION METHODS

*Feature
Articles*

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A presentation layout should always be submitted in finished style. It requires a little more work than a "rough" but it pays, because every prospect likes to see what he will get before he places an order — especially when a custom built job is involved.

NOVEMBER 1937

A COMPARATIVE ANALYSIS SHOWING THE CLOSE RELATION BETWEEN PERSONAL SALESMANSHIP AND THE PRINTED OR LITHOGRAPHED MESSAGE. TO BE SUCCESSFUL BOTH MUST MEASURE UP TO THIS OR A SIMILAR STANDARD.

SALESMAN	COPY AND LAYOUT
The first ten words a salesman says.	*Heading, illustration or whatever element commands first attention.
Neat, clean, orderly dress and shoes shined.	*Attractive layout, commanding attention. Sharp, clean printing. Blacks that are black.
A smile.	*A good illustration where possible.
Pleasing personality. An interesting and informative talker.	Easy reading, legible copy, interesting story.
Know the article or service being sold and tell facts.	Truthful, informative copy.
Emphasis and repetition of major selling points.	*Rhythm in layout produced by repetition. Use of color for emphasis.
Necessity to call again as in case of article requiring large expenditure.	*Familiar slogan, trade mark or other mark of distinction quickly recognized at various times.
Ability to close.	*Attached coupon or return card. Dealers name. Invitation to action.

**An attractive presentation layout embodying these points is the first step in building a successful advertising idea.*

salesmen themselves can devote more time to actual contact work and the closing of sales.

The building up of a presentable and intelligent presentation layout requires more than just the ability to prepare a rough visual or working layout. If the suggestion is definitely built around a merchandising idea the headings should cover certain selling points about the article or service.

Creative printers and photo-lithographers who really make a business of creating sales literature are in much the same class as the advertising agency. Most agencies will go to a lot of time and trouble to prepare dummies and layouts for presentation because they know that the better the presentation the better impression their client will get of the idea and its purpose. However, you might better present a good professional looking rough visual than an amateurish finished layout.

There are several factors which must receive serious consideration when making a finished presentation layout. First, obtain from your prospect, either by letter or personal contact, some "inside" information about the product or service so that your idea will immediately "click." A layout or dummy containing actual talking points about the product will register a much better impression than one that shows heading and secondary display merely by lines of fictitious wording. Some salesmen, and employers too, claim it takes too much time and effort to obtain the facts necessary for this purpose. But you'll find that a half dozen intelligent questions and a few of the prospect's previously printed pieces will furnish ample material on which to prepare an intelligent presentation layout. But suppose the salesman or the

layout man *does* write a few lines that do not quite fit the product, the prospect still thinks you are "on your toes." Such an impression immediately starts to break down sales resistance.

Every photo-lithographer should have a creative idea department. Creative ideas by photo-offset are lifted above competition and out of the price class. Such ideas are custom built suggestions designed especially for a particular prospect, and have no right to be passed around for competitive bids. An original advertising idea belongs solely to the originator until it is sold to the customer. And by virtue of the fact that it is custom built it will demand a better profit than the "run of mill" production. It will pay every photo-lithographer to avail himself of the services of a good creative idea man, either free lance or full time. Such a man can give the salesmen a lot of encouragement, stimulate their sales, and turn cool prospects into steady customers, beside giving the house a better margin.

**LOOK FOR YOUR NAME IN THE
SPECIMEN REVIEW DEPT. NEXT MONTH**

We are happy to announce a new department commencing with our next issue. A sufficient number of subscribers have responded with samples of their work to warrant a Specimen Review Dept. Let's keep the ball rolling and make a really helpful feature out of this. You are urged to send in samples of your own work as well as offset jobs you are doing for your customers. These specimens will be carefully reviewed and commented upon, and as space permits, some of the most outstanding examples will be reproduced. Please address the envelope or package to the Photo-Lithographer, 1776 Broadway, New York City. Also mark the corner of the envelope "For Review."

No Cutting...No Intensifying *necessary with*

KODALITH STRIPPING FILM

THE instant the shutter clicks you've got your negative, when you use Kodalith Transparent Stripping Film. Then develop and fix...and you're ready to shoot the next job.

No cutting...no intensifying...no doctoring, with Kodalith. Eliminate costly sink work...forget all the chemicals needed for the wet-plate method. Never mind shop temperature or humidity. Use Kodalith Stripping Film.

Just follow the directions for controlling temperature of developer and other solutions...learn the technique suggested...and you'll double negative production at a new low cost for materials.

Write us about an appointment for a practical demonstration in your own shop.



EASTMAN KODAK CO.
GRAPHIC ARTS DEPT., ROCHESTER, N. Y.



Candid photo made in pressroom of J. C. Dillon Company, Inc., New York

BEST IN THE LONG RUN

In selecting paper for short press runs your sole consideration is how the job will *look*. But for long runs you need to consider, also, how it will *perform*. Troubles due to variations in uniformity and quality magnify with every press revolution. They may render unacceptable a large part of the edition, besides causing delay and expense in the running. Don't take chances! Specify a *Cantine* paper, because Cantine's fifty years of specialization under one management assures the highest degree of uniformity, quality and dependability. Ask your distributor, or consult "The Book of Cantine's Coated Papers and Advertising Information." The Martin Cantine Company, Saugerties, New York.

A Valuable Book
To Have and Use



Cantine's COATED PAPERS
FOR OFFSET AND LETTERPRESS

Report of President Heideke

(Continued from page 16)

tions of production. Suggested schedules for half-tones, based on actual cost studies, time studies on black and white combination runs, and the hourly costs of operating various size presses.

Our secretary secured for you technical reports on "difficulties encountered in photo-lithographic plants" prepared by Dr. L. R. Meloy. These reports were sent to you without extra cost, although the original report was paid for by a member plant. Our secretary has done much to publicize the economic and other advantages of photo-lithography. Addresses were given by him before advertising clubs, production men's clubs and other buyers of printing.

Among the fine reports that were made by various officers of our association, I cannot refrain from referring, at least briefly, to our treasurer's report. Our budget is balanced.

Reports from various sections of the country indicate that most all of our members are enjoying an increase in their dollar volume of business this year. For this we are grateful.

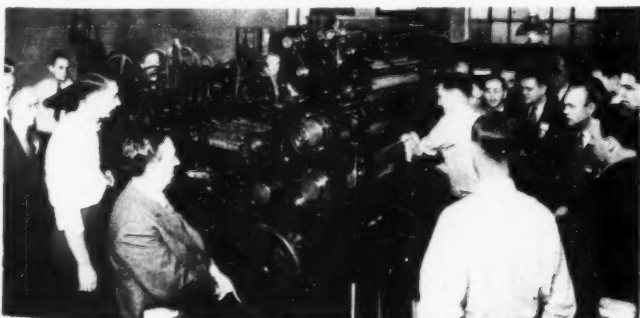
Many new plants are coming into the field; a great many of these newcomers are letterpress printers desiring to add an offset department to their establishments. This fact increases the necessity of your national organization.

The maintenance of accurate costs and a constantly improved product are absolute essentials if we are to hold our economic advantages and the resulting profits from them.

If you will refer to your files of 1933, or further back, and make a comparison with similar jobs you are doing today, I believe you will better understand what I mean by "constantly improved product."

You and I know that our national association has played a very prominent part in this production advancement; and there are a great many more plants today that have a better understanding of their costs than ever before.

Our work has just begun, and with your cooperation and support it will be continued.



You would think — from the great interest shown here — that this operation is altogether new to all these men. Well, that pressman looks as if he might be master of a few tricks worth knowing.



Only that topcoat suggests that any of this bunch will be ready for a long time to leave such an engrossing exhibit.

Our industry is yet young from a commercial application point of view; therefore, we must direct our greatest efforts toward the educational.

Our educational program to insure the progress and stability of the industry now as well as in the future has not been overlooked. Indeed, our greatest effort during this past year has been directed toward that end, because we feel that this effort does and will improve our service. It is therefore with a feeling of accomplishment that I report to you that pre-apprenticeship training for young men, who desire to become skilled workmen in our industry, is now practically assured. In addition I believe we have also provided, at least, the basis for specialized training in photo-lithography for graduate chemists and engineers. These educational programs will be carefully promoted so that the students as well as the industry will be benefited by them.

I am going to repeat my statement given you at Atlantic City last year, wherein I said that in our original formation of this national association, we recognized and advocated the absolute necessity of encouraging and aiding in the formation of local groups, for through this medium of contact the national association has the opportunity to do its most valuable work.

If your locality feels the expense would be too great to maintain a secretary for a local group of your own, then I would encourage the members to join one of the other established local graphic arts groups, and request that you be permitted to function as a division of their parent group. This will provide you with the services of a trained secretary, which is very vital to the successful function of any group, large or small.

Your local affiliations help rather than hinder your own national association. In fact, through your local affiliations your national association is then placed in a position to render services to you which would otherwise be difficult and expensive. Cooperation is the key to it all, and it is for this purpose that the national association may be used, that is, to make sure that this cooperation is forthcoming.

(Continued on page 33)

LETTER Perfect!

..... AND AS SIMPLE AS A B C. A process for users of hand lettering, making possible greater accuracy, superior quality and better reproductive properties than the best product available in any other medium. Here also is the solution to many type squeezing and stretching problems. Positive, reverse, screened and countless other variations of the latest styles of lettering are now to be had. This 'technique of tomorrow' certainly merits your investigation today!

The Rutherford Photo-Lettering Machine will compose directly on film, or on paper. Photo-lithographers attention!

UNTOUCHED BY HUMAN HAND



RUTHERFORD PHOTO-LETTERING MACHINE

RUTHERFORD MACHINERY CO.

DIVISION: GENERAL PRINTING INK CORPORATION
MAIN OFFICE: 100 SIXTH AVENUE NEW YORK, N. Y.

ALL COMPOSITION PRODUCED ON THE RUTHERFORD PHOTO-LETTERING MACHINE BY PHOTO-COMP, 914 WALNUT ST. PHILA.



EVERYTHING FOR THE LITHOGRAPHER

LITHO SUPPLIES

INKS

VARNISHES

DRYERS

LITHOTINE

PRESS CLEANERS

OFFSET RUBBER BLANKETS

DEVELOPING INK

LITHO DUBAR

SAFETCH SOLUTION

FALCO PURE EGG ALBUMEN

ZINC AND ALUMINUM PLATES

THE FUCHS & LANG MFG. CO.

ESTABLISHED 1870

DIVISION • GENERAL PRINTING INK CORPORATION

(EVERYTHING FOR THE LITHOGRAPHER)

100 SIXTH AVENUE • NEW YORK

BOSTON • CHICAGO • CINCINNATI • CLEVELAND • FORT WORTH
PHILADELPHIA • ST. LOUIS • SAN FRANCISCO • LOS ANGELES



*Lithaloid
Superiorities*

VIVID CONTRAST
REPRODUCES
FINE LINES
CUTS COSTS
WIDE LATITUDE
EASY
MANIPULATION
FASTER



Naturally, we're mighty enthusiastic about Lithaloid's consistent formity. So we'd prefer to let *Lithaloid users* tell you in their own words what they think about the remarkably satisfying product. Here are just a few comments by people whom you may know in the industry.

"We have been using Lithaloid for the past two years and have found that the wide latitude, uniform quality and ease of manipulation of this material meets the most exacting requirements."

Edward D. Wilson, President
New York Lithographing Corp., N. Y. C.

"We want to commend you on the uniformity of your Lithaloid paper. We have used it for the past two years and find it superior to similar products."

E. S. Recker, Prod. Manager
John S. Swift & Co., Planographers

"Having used your Lithaloid paper for months we wish to report that we are able to get uniform

results equal in every way to results we usually obtain on film."

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FOR CHRISTMAS AND THROUGHOUT 1938

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Will prove an unfailing source of inspiration to all seeking ideas and the better methods of presentation.

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THE GUIDE BOOK

Gives the Printer over 2000 individual sketches and matrices designed to arouse reader interest from an advertising and printing angle. It further illustrates over 1000 actual examples of the use of these illustrations for local advertising and printing. A few of the subjects illustrated are—Proper Space Divisions and Good Proportions—Marginal Spacing—Model Layouts—Sketch Effects—Sport Advertising and Layouts—23 Illustrated Folders—3 Self Clip Folders—House Organ Layouts and Editorials—Two and Three Color Effects—24 Types of Envelopes—Color in Envelopes—Simple Cut Outs and Slot Cuts—Post Card—Calendar and Blotter Ideas—Yearly Campaigns by the Week—Illustrated Letters and Letterheads—Printed Tags—Embellishing the Coupon—Social, Lodge and Order Advertising—Use of Silhouettes—Interchangeable Borders—5 Modern Hand Lettered Alphabets.

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Additional proof white cut-up sheets of all the illustrations are printed in size to fit a regular office file or desk drawer. Cut-up pages and matrices are arranged to correspond with the printed pages and numbered accordingly.

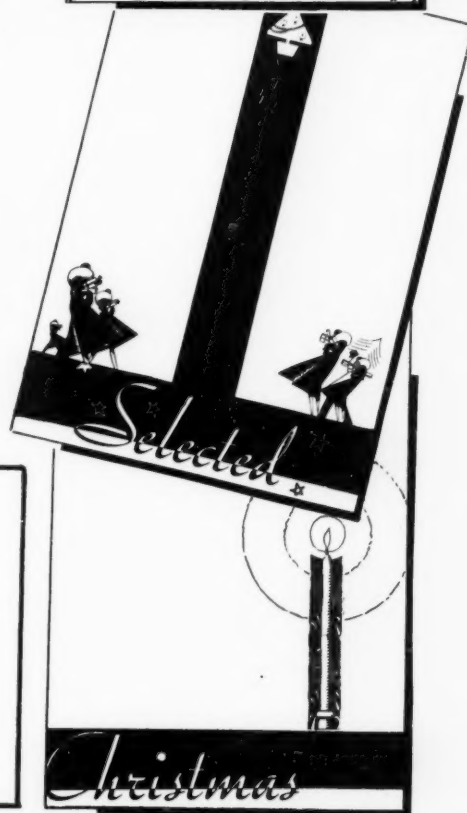
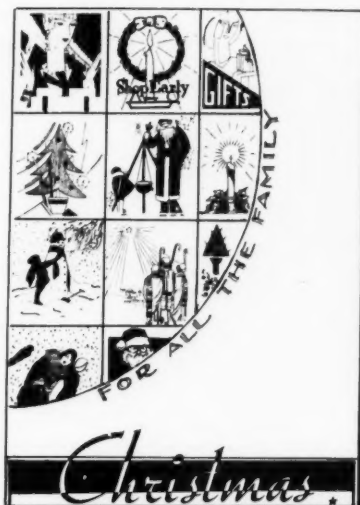
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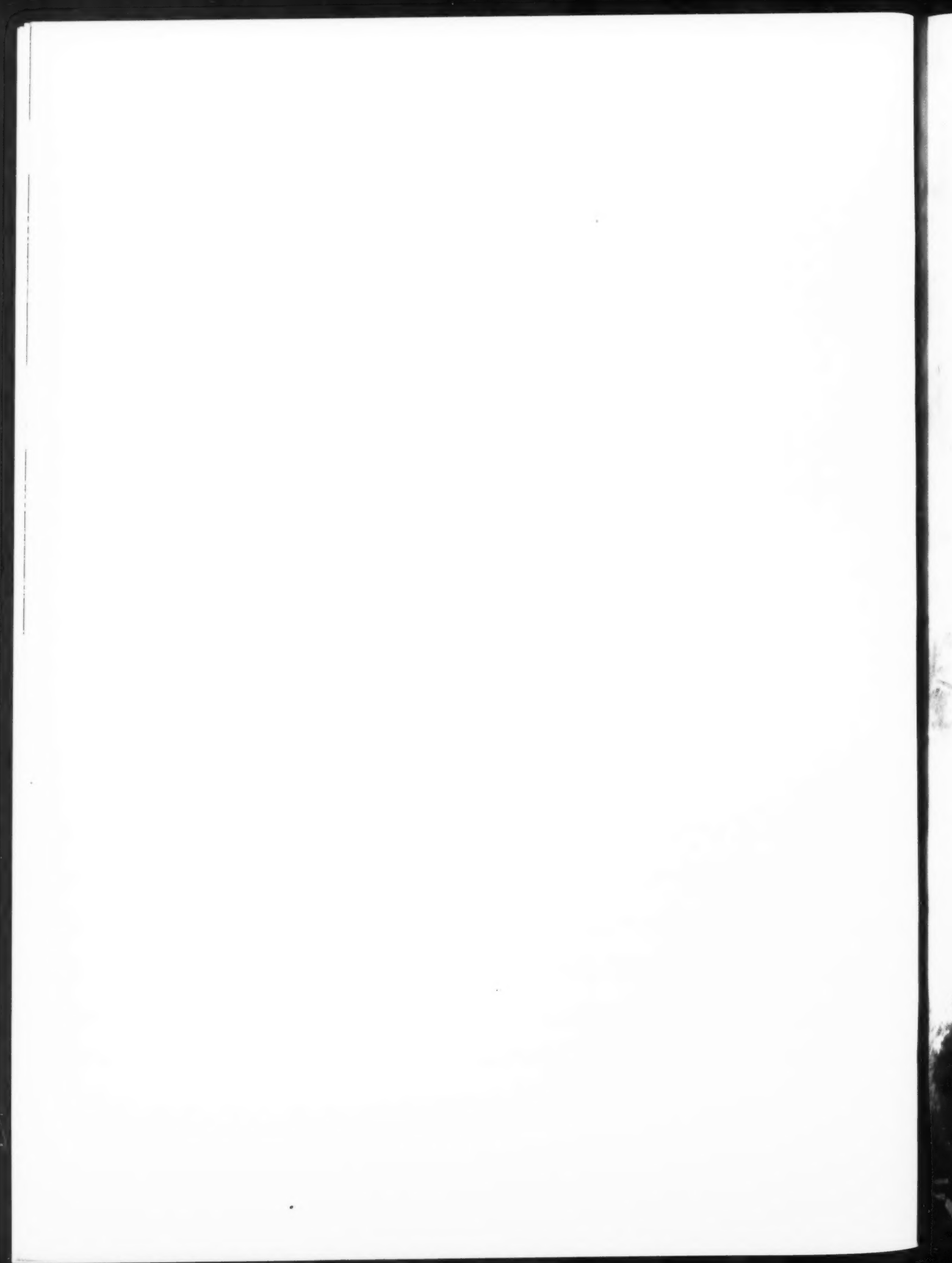


Please send me further particulars and your 8 pages folder on Printing Ideas and the Wherewith.

Name

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☐ I can use cut-up sheets only. ☐ I can use mats and cut-up sheets. (Please check material required).





THANK YOU

FELLOW CRAFTSMEN



The Copifyer Lithograph Corporation, one of your hosts at the National Association of Photo-Lithographer's Convention in Cleveland, October 14-15-16, acknowledges with thanks the intense interest shown on the part of our fellow craftsmen during the technical demonstrations in our Cleveland plant.



THE COPIFYER LITHOGRAPH CORPORATION

1101 POWER AVENUE • Prospect 7711 • CLEVELAND, OHIO

• FROST • SCHAUMANN • MYERS •

PHOTO OFFSET

Report of President Heideke

(Continued from page 29)

Do not frown on the idea of joining a local competitive-method group, especially if it is experienced in association work. You can rest assured that you will learn much that you should know about cooperation, and the promotion of good fellowship with your competing process members is worth more to you than what you pay incidental to your membership in the local group. Your local competitive-method group is literally living in the same house with you, and there is every reason for you to be on friendly terms with your own household.

Considerable thought and some effort has been devoted to obtain better and more friendly relations between ourselves and competing methods and processes. It is not only essential for the present, but quite necessary for the future that friendly relations exist between the organizations and members representing the various branches of the graphic arts.

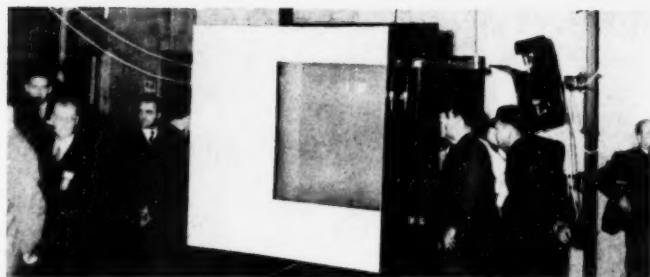
If we are to continue to operate under the profit system, it is obviously necessary that the various branches of the graphic arts adopt a policy of friendliness among each other. I am not advocating the seemingly impossible; but I do believe that if we refrain from spending efforts to harm or hinder each other; even though we do nothing else, we will be in a better position to prevent some of our difficulties—with some profit for all of us.

It is with a great deal of satisfaction that I can report to you that friendly relations do exist between your association and most all of the branches of the graphic arts; but conditions are not such as to allow us to relax our efforts.

Confusion and unrest in our country as well as all the world is more prevalent today than ever before. The reason of our own unrest is not mysterious. We are now required to think in different terms and to learn a new language, so to speak; and some difficulty is being experienced with this new language.



You would have had a job on your hands trying to crash this typical circle during a technical session.



This camera had no privacy, concealed no secrets, from such thorough knowledge seekers.

There is much to be said in favor of some of these business conduct reforms, for the most conservative of men will admit that certain ownership privileges were abused to the extent that at least curtailment or control was necessary; but like all reform movements, there is the possibility of their reaching too far and by attempting to devise a cure-all, actually create new evils as bad or worse than those they sought to cure.

The privilege of owning or conducting a business today is a rather risky and costly undertaking. Aside from the visible taxes which have been and will have to be still further increased, we have the so-called hidden taxes, the amount and extent of which very few of us are aware. We detect them only in the increased cost of living for ourselves and our employees.

If these monthly taxes and other payments by some other name, have not been reflected in your cost, then it is high time that you prepare yourself to reckon with them, and adjust your cost to the necessary extent.

We as a nation are still spending more than our income, which leaves one without any definite believable assurance of when our national budget will be balanced. So long as we spend in excess of our income, taxes cannot cease to increase, because taxes are money collected from you and me to pay an overdue bill with interest.

This is not a digression into politics, but an attempt to awaken the strongest natural instinct of mankind.—Self preservation!

It might not be amiss to remind you of the old expression: "An ounce of prevention is worth a pound of cure." Then we might dress this expression with an applicable modern slant, by saying: "An ounce of effort for prevention is worth a pound of belly-aching."

I want to especially call your attention to the exhibits which are an added attraction this year.

To the exhibitors we want to extend a hearty welcome, and we want you to know that we appreciate the confidence you have in our association.

There is one item that I particularly want you to consider. Our secretary has compiled a very valuable book known as the Photo-Lithographers Manual, at his own expense—an expense of considerable proportions.

(Continued on page 79)

MOLLETON

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RUBBER BLANKETS

SEWN MOLLETON & FLANNEL COVERS

SEAMLESS MOLLETON & FLANNEL COVERS

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RUSH!*

THE SUPERINTENDENT IN THE LITHOGRAPHIC INDUSTRY. PART II

By ADAM HENRY REISER

THE previous article, first of a series of three on the subject, analyzed the requirements of a superintendent, placing them under three headings: human, mechanical and administrative. Considering human relations to be the most important of the three, it was to be the first developed by this month's work, in addition to listing and developing the second in degree of importance.

HUMAN RELATIONS IS AN ART

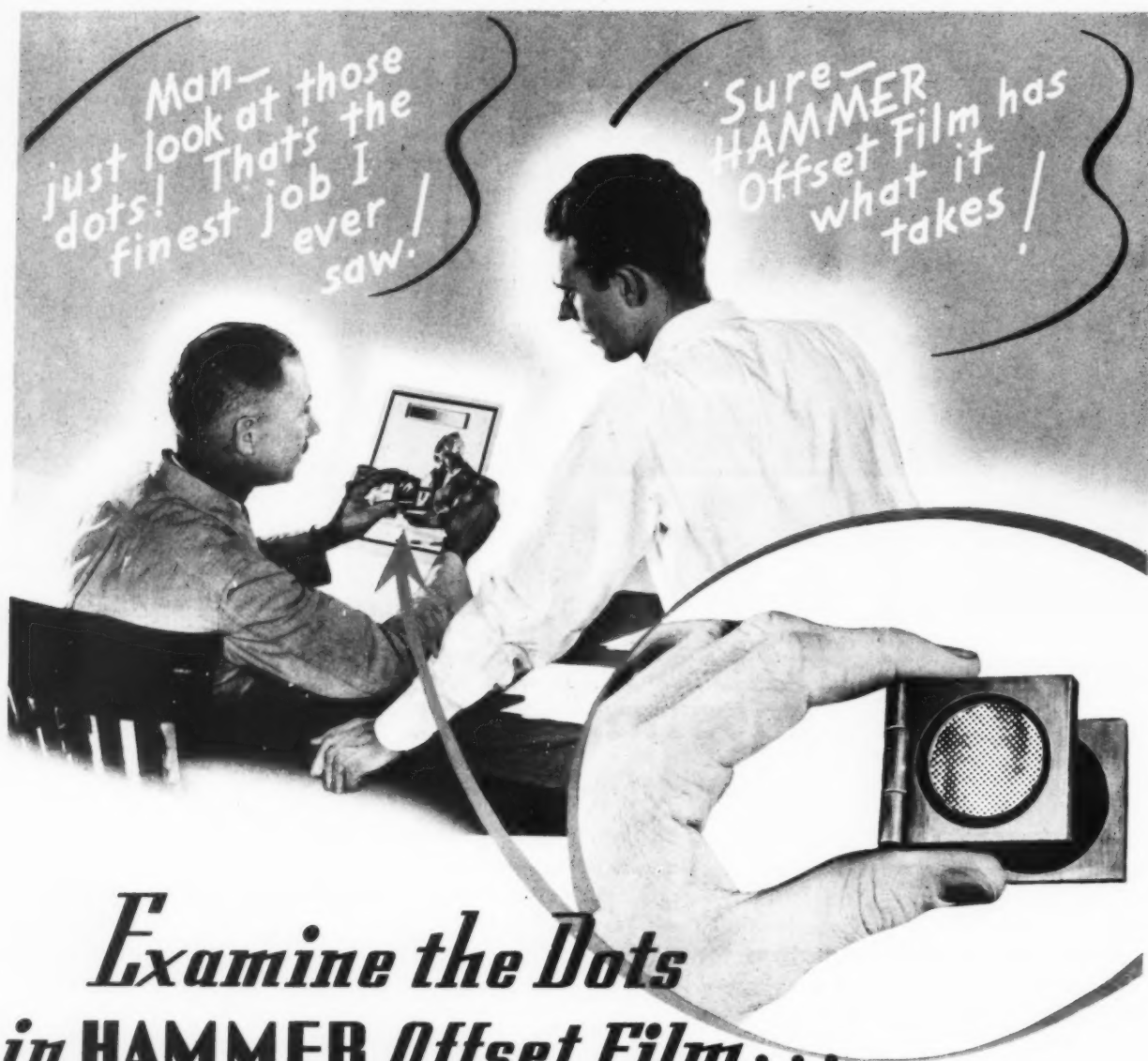
In an industry like ours where the skill requirements are high, and art is still a factor, there is an abundant need for the study of human relations by the superintendent. Any well established business has for a foundation its man power. This was recently reported by a radio news commentator as being expressed by an executive group at a convention. Man power, the personnel of an industry, has to be developed into a human structure of many persons, each with different natural tendencies, responses and abilities, yet all acting towards the one goal: playing as a unit. Dr. Edward D. Jones puts this in a different way when he defines the chief task of the executive as "the means by which you provide, in a group of men, for harmony of mood, harmony of attitude, or the desire of all to accomplish the same thing. That is what we call co-operation, or the right mental attitude toward the project in hand."

Human relations. A knowledge of the avenues of innate forces present in individuals, which may be used to secure

results, must be as familiar to the executive as are the highways of his route to the transcontinental pilot. Professor Erwin Haskell Schell writes in his "Technique of Executive Control," "The task is to stimulate the driving force which is within the individual so that he faces his work with a self-inspired eagerness." This implies a knowledge of those forces of human relations.

This problem of human relations is an art, with its ever-changing material, complex and defying standardization. Professor F. Alexander Magoun says, "It is based on the I plus You relationship. What must I do to myself so that my reaction on You will make You want to do better work?" How can cooperation be secured? How can the inter-weaving of interests be secured so that the will-to-do is present? The study and the application of its principles is like medicine. The dose must be suited to the individual. To set a hard and fast rule for each case is but to court disaster. Different trades and even different branches of the same trade require different levels of intellect. Reasoning and presentation of the facts will appeal to the higher intellect. Instinctive responses must be appealed to in those of the lower brackets. In addition there are many other angles in human relations, this treatment of the men under any executive, that must be considered continuously.

In reading this, some probably will take the faulty attitude of the western plant manager. Called in to obtain normal operation of the plate-making department, the



Examine the Dots *in HAMMER Offset Film...* **• they tell the story!**

The dot structure in HAMMER Offset is conclusive proof of superiority. With this fine medium you can dot etch from a strong half to a light eighth tint without loss of opacity—and the tonal gradation and retention of detail is truly amazing.

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HAMMER DRY PLATE & FILM CO.

SAINT LOUIS

writer called attention to certain psychological aspects of the case. To correct these, the writer considered it wise to bring some of the simplest forms of human relations to bear. This plan was rejected by the higher-up on grounds of treating every one in the plant alike. The management wanted to play wet nurse to no small group in the plant. That was his stand.

With varying degrees of skill necessary to the completed product, it easily can be seen how faulty such a treatment of the problem really became. As a matter of actual fact, later on, an opportunity came to invoke some of the rejected proposals, and, needless to say, under the new scheme of things the very men who were considered unworthy as mechanics, now more than held up their end. Yes sir, these principles of human relations work. Worked out in their fullest sense, gratifying results are obtained. Let's look at some of them. Compare them with your past experiences and see how much improved as a workman you would have been under the approved type of leadership. See also how, as an executive, you made use in a natural way of some of these same principles.

LEADERSHIP TOOLS

We are told that appeals made to intelligence, to the instincts, imitation and habit forming traits of humans, will bear fruit. Probably the greatest appeal that can be made to man is through leadership. Of course all of the little bag of tricks drawn upon by any leader contains all of the items of human relations. However, there are certain characteristics which can be identified with leadership alone. Real leadership carries with it the ability to have the men associated with him anticipate his every wish. Associated with him, men are stimulated to think for themselves. Their initiative is fostered. In some shops, every little question is answered by the superintendent; the foreman is an errand boy. In the ideal plant necessary instructions are typed on the shop form; questions as to how are left to the discretion of the mechanics who have been with the concern long enough to know the ropes.

Real leadership recognizes that courtesy is as important in dealings with men associated with the leader, as it is imperative towards the chief. Profanity and emotional outbursts have no place in dealings with men. An even temper, justice and fair treatment are as necessary to the acquisition of the respect of the men as any other single factor. Loyalty can be created by fair conditions inside the plant through humane treatment, for instance, in matters of speed, hours and wages. A case in point is that of layoff in dull times. Orders from the top in one place during a seasonal layoff wanted a skeleton crew of the top flight mechanics kept on, while all of the rest were to be laid off. Discussion took place upon the advisability of this procedure, the department head supporting

an evenly distributed time-sharing plan for all hands then employed. Objections from the management took the form of increased bookkeeping, and added costs of materials, time cards, etc., besides lost time incident to starting when each man reported for his two or three day work period per week or every other week. Finally, the split-time idea was thought worthy of trial and run all through to the next busy season. It showed its worth then, for more work was turned out with that same crew than had been the order previously, with greater numbers coupled with overtime. The men appreciated the arrangement. Furthermore it made unnecessary the induction of green help.

Its greatest contribution, however, was the elimination of fear. Fear of economic insecurity is probably the greatest destructive force in industry. Discharge or lay-off of an old employee creates fear of security. Fear of the job makes the operator afraid of himself. Consequently the production scale goes down. The corrective for that fear is justice. It was born out in the above and many other cases. Another result of the above move was to bring about a better discipline than ever existed before in that department. It was the ideal discipline of reason.

Appreciation, friendliness and the ability to smile are necessary adjuncts of leadership that can be used to fashion loyalty. The voice with the smile slogan is no myth. It really brings results. In one of our teacher training classes we had a chap who was grim visaged; never cracked a smile. His classroom demonstrations at the start were always charged with electricity. Finally the leader in charge got over the idea of the smile. Questioning as to why he never smiled disclosed a peculiar line of reasoning. The stern-faced one thought that people took advantage of him in his work as an electrical inspector when he smiled and therefore never smiled. Stimulus and response were used by the leader to show how faulty was the student's reasoning and the attempts at smiling at least eased up that fellow's classroom work. It's only putting to work the old adage, "More flies can be caught with sugar than with vinegar."

Tolerance and patience are also two worthy attributes. Many a job has been pulled out uncompleted from under the artist's nose to get it on the press, only to find it necessary to have another printing added to it later, in an attempt to make it salable. There must be present the ability to understand and remember personal feelings, to be understood and to realize that no man's actions have any meaning by themselves. They must be understood in relation to other things, particularly the past and present environment. Again, the problem must be seen as a whole. A good leader remembers his own shop days and talks the worker's language. Anticipation, too, must be practiced. As one executive put it, "Always be a jump ahead of the other fellow." And yet it is good policy not to jump at conclusions like the lad in the story who declared his love for the only one and asked, "Won't you

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OFFSET BLANKETS

The Red Blanket

... made in three, four, five and six ply. The three-ply Red Blanket is widely used for all kinds of offset printing. This blanket, as well as the four-ply Red Blanket, is also widely used throughout the country by metal decorators; in fact these are the leading offset blankets for that kind of work. Five and six-ply Red Blankets are used as impression blankets on decalcomania and flat-bed presses.

The Black Blanket (STYLE 808)

... made in three and four ply ... is especially designed for high-grade color and halftone work.

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These rollers save money by forestalling costly press delays. Unaffected by heat or cold ... impervious to oils and driers ... and free from stickiness, swelling and shrinking ... Litholastic Rollers give better distribution and better presswork as well as over-all economy.

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PIONEER MANUFACTURERS OF OFFSET BLANKETS
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 SALES REPRESENTATIVES IN PRINCIPAL CITIES

be my wife?" To which she replied, "You must see mama first." He answered, "I have seen her several times, but love you just the same."

IMITATION AND INSTINCTS

Examples set by the executive are the strongest form of teaching and molding factory personnel. "As the cock crows, so the cockerel learns." This works on the imitative instinct. It brings results without orders. An example of this is a recent experience still fresh in mind. A "no smoking" sign had been posted by the employer, with strict orders to the superintendent to see that it was observed. It was, until the employer and his son made a habit of smoking while walking through the plant. Imitation. Conduct of the superintendent to the personnel will be imitated by the men. Therefore, if the organization is not too large, periodic meetings should be arranged. Self-expression and self-assertion should be the rule without fear of reprisal at these meetings. Complaints should be heard and attended to. The employee should see the place his department occupies in the scheme of things in the plant. Talks and lectures would be directed efforts to weld a strong, efficient organization. The force and determined quality of the leader would simmer down through the ranks to a far greater degree through these meetings than would otherwise be the case. It has been said the human side of an organization is never sufficiently stressed. Works committees and frequent meetings would tend to cement the group.

Employees of one plant resented the discontinuance of the periodic conferences they had come to value so highly. They felt they were part of the plant and had a right to know what was going on. You see that meeting appealed to the instinct of ownership. The way this is made use of in modern corporations is described in an article in the "Executive Service Bulletin" of October. Bennett Chapple, vice-president of The American Rolling Mills tells how the company fosters employee relations by means of an "Industrial Constitution," and a firm belief in the necessity to "tell the employee and tell him why." That instinct of ownership is also catered to by individual time cards, individual lockers, benches and machines. Night shift experiences with two crews on the same press bring out that quality only too well. Each man wants to set the machine his way. With this feeling of ownership inspired by individual equipment and records, as well as profit sharing plans comes a decreased labor turnover.

Suggestion boxes offer tremendous possibilities. Through them a three-fold wedge appeals in turn to the fighting spirit, the pride of the mechanic in his profession and to the added income possible through a winning suggestion which works on the old home-making instinct. Again, the superintendent shows his mettle here. The box has been used by some to further their ends, that old bugaboo, politics, still being played all too often in plants. Execu-

tives have been known to lose their official heads through the gossip dropped into the box. One case came to attention only recently, where a communication laid some underhanded work at some executive's door, resulting in his dismissal. The one who profited by that dismissal was later found to have sent that note.

Curiosity should be encouraged in the child. In the successful mechanic, too, it is undoubtedly the greatest attribute. Many of us have gone from shop to shop to learn methods different and more modern than those we already knew. The wise superintendent makes use of that fact. Men will come to the shop that has a new process. Right now there is a rumor of a shop in a mid-western town where dot etching has been eliminated. You have no idea how that has awakened the curiosity and worked on that instinct of the lithographic workman. For we realize that the man who does not entertain the spirit of progress will certainly know the ghost of failure.

FORCE OF HABIT

Last of all is the force of habit, the factor which probably more than anything else can be of such benefit to humanity. It is said that executives can rely very little upon habit, their work being rarely routine. While their actions are determined largely by habit built upon past experience, their problems often are so varied as to call for individual treatment. But the work of the mechanic is dependent largely upon habit. This in itself introduces the idea that there is an overlapping of this habit factor from the field of human relations to that of mechanics, the second most important branch of the superintendent's service. For in order to know anything concerning the force of habit of the men associated with him, the superintendent must possess an intimate knowledge of the mechanical end of the business.

To illustrate this point let us take a recent occurrence. A job was ordered on a specific colored stock that was hard to get in the limited quantity desired. The decision was made to color the paper lithographically. Our pressman, accustomed only to running with dampers in the press wanted a plate drawn with a solid, smaller than the sheet so that a white margin showed around the edge of the sheet giving him room for his dampers to work. Habits of routine dictated such a policy to him. Appeals to reason and mechanical principles were made with an eye to showing the pressman the comparative ease of running the job with a solid all over the plate and no dampers in the press. Savings in time and material were affected in running that way. That is but one instance, but it brings out the point that the superintendent recognize the two fields in which the force of habit operates. He must realize the strength of this factor, force of habit, and make provision for it when attempting to inaugurate a new rule or policy. Definite check must be made over a

(Continued on page 75)

THE PLANT OF ONE OF OUR CONVENTION HOSTS

THOSE who attended the recent N. A. P. L. Convention may be interested in a story of the inception and growth of the Copifyer Lithograph Corporation, in whose plant in Cleveland many technical sessions were held during the Convention.

There are probably few lithographic houses that have shown as rapid and steady a growth as the Copifyer Lithograph Corporation. Heading it are three men, Mr. Allan H. Frost, president, Mr. Werner W. Schaumann, vice-president, and Mr. Frank Myers, treasurer. Before the present company was formed, Mr. Myers and Mr. Frost were selling photo-offset work in the Cleveland district. They had formerly been with the Copifyer Corporation in Detroit. When Mr. Schaumann came to Cleveland as the district manager of Copifyer, they renewed an old acquaintanceship, and formed the Copifyer Corporation of Ohio on October 1, 1933. In the spring of 1937, the Detroit-owned shares were bought by the Cleveland concern, so that full control of the company now rests with Mr. Frost, Mr. Schaumann, and Mr. Myers.

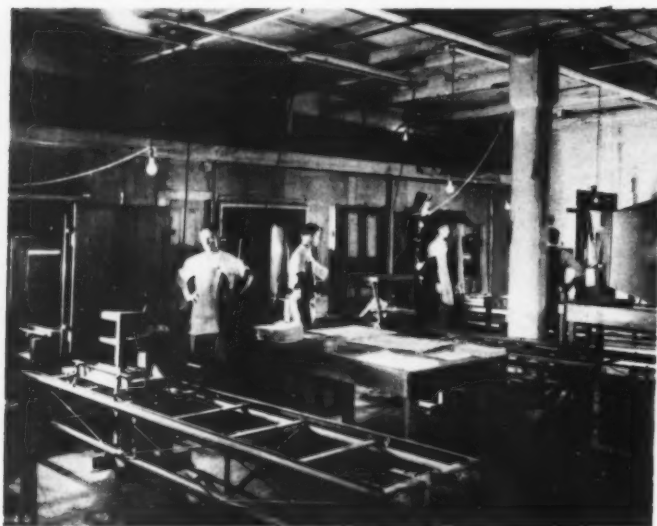
Copifyer's beginnings were small but complete. Their original floor space of 3000 square feet contained one camera, plate and layout departments, and one single color press, 28 x 42, all used equipment. Today, only four years later, the plant contains 20,000 square feet, and its equipment is complete and modern. During the first year of its existence, the company added another single color press, 36 x 48. In the second year, three more presses were bought, a second single color, 36 x 48, a two color 36 x 48, and a Webendorfer, with the other departments growing in proportion. With the increase in the volume of business came the need for a bindery, which was installed in 1936. Copifyer is thus able, in its own shop, to take care of orders calling for bindery work, whether hand or machine.



Color Correction Department



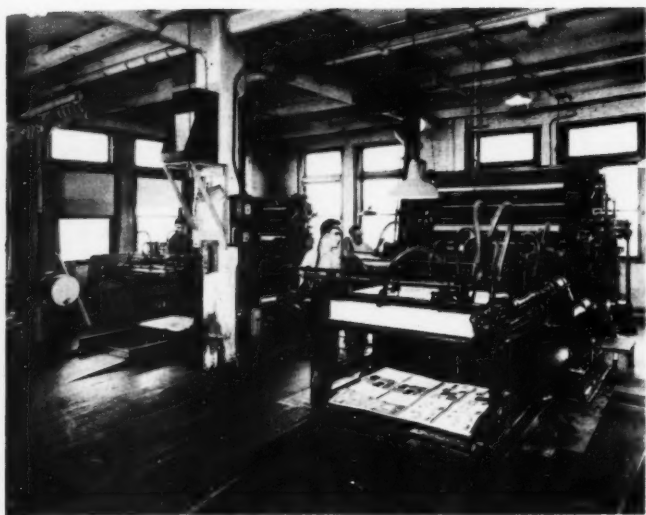
Plate Department



Photographing Department



Layout Department



One-Third View, Press Department



One-Third View, Press Department, Showing Two-Color Press



One-Half View, Bindery Department

In 1937 the equipment was brought even more up-to-date with the addition of a 40 x 40 color camera and a large step and repeat machine.

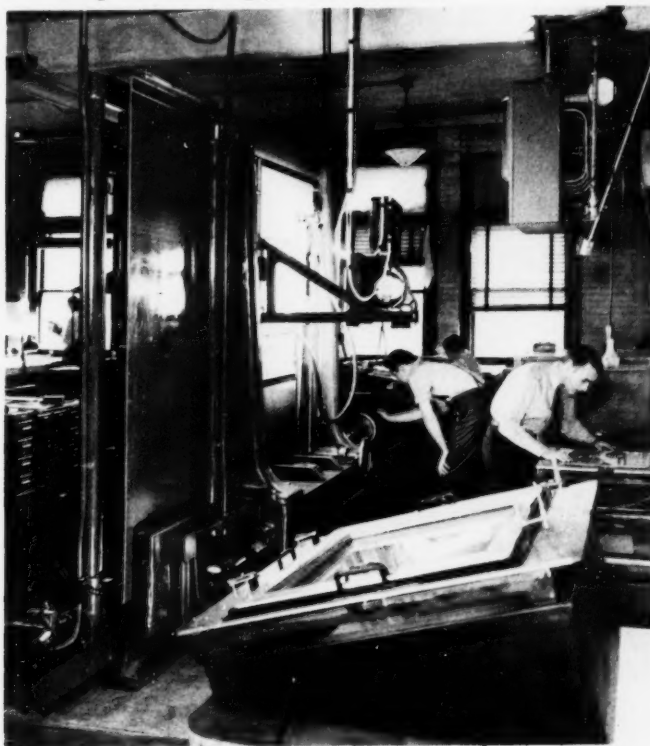
Some idea of the growth of the concern can be gained by considering that 1935 sales increased 100% over 1934, and 1936 sales were 50% above the sales for 1935. 1937 to date is 60% over 1936 to date. When the company started, they did only black and white work, but now they have complete equipment for four-color process work, making all their own plates for this process. The process and flat color work has been so successful that at the present time 80% of the work is done in color.

The complete line of lithographic machinery which has been installed over the short period of four years enables this progressive house to handle all sizes of work, from small leaflets to blow-ups and posters, in both black and white and colors.

The Copifyer Lithograph Corporation also operates a completely equipped plant in Pittsburgh, started during the third year of their business life.

This plant's rapid growth was not the result of an unusually fertile field or luck. It came from the consistent use of intelligent and aggressive sales methods and efficient management and production procedures.

The principal point to this true "success story" is that photo-lithography as an industry is growing by leaps and bounds. The individual lithographer can grow at the same pace if he employs modern business methods and keeps everlastingly "on his toes."



Rutherford Photo Composing Machine

Consider Equipment with Distinctive Advantages

Wesel Plate-Coating Machine

(Right)

• This machine has an automatic *air-circulating* device that attracts no dust from outside. *A distinctive advantage.* Requires no extra motor for that purpose. Keeps the warm air *uniform and in constant motion*,—a factor insuring speed, consistency and cleanliness.

Driven by direct-connected, geared-head motor for positive and constant speeds, controlled by variable speed regulator.

In addition to the copper washing spray with automatic cut-off, this machine is fitted with a perforated copper spray pipe for cleansing the housing.

Aluminum Alloy revolving table; rustless alloy steel drum (not tin); ballbearing construction; adjustable legs; convenient drain connections; pilot light, etc.



Wesel Automatic Vacuum Printing Frame

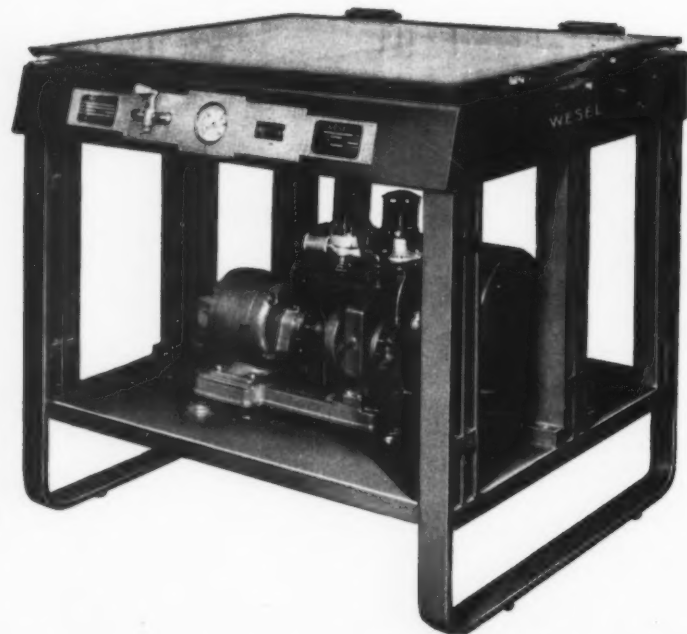
(Left)

• This unit has several distinctive advantages. The *automatic vacuum control* saves over two thirds of the electric current. This one advantage makes the most popular machine we have ever designed. Over a thousand are in use!

Vacuum contact may be had in two to three seconds. And there are no hooks, clamps or fastenings. The new "quartz crystal" glass *permits 25% faster exposure*. Motor and pump are built into one integral unit, the metal base of which is supported on a series of compression springs, eliminating all noise and vibration.

Entire mechanism operated from one central control panel. Nothing to get out of order.

Made in Two Standard Sizes



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431 Clay Street

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637 Craig Street West

PRINTING AS AN EDUCATIONAL FORCE

By GLEN U. CLEETON

Head of the Department of Printing, Carnegie Institute of Technology, Pittsburgh, Pennsylvania

THE fact that the printing arts is one of the major industries is not new. But few of us consider that it is woven through the fabric of all industries. Printed products are so much a part of daily life that the average person takes them for granted like trees, sidewalks, houses, food and clothing—things which would become conspicuous to our attention by their absence rather than their presence.

In its order this industry stands in fifth place with only food, metal, clothing, and motor vehicles exceeding in volume. Even during depression periods, the printing industry suffers the least of all. Perhaps this is due to the fact that people who are partially idle have more time to read. Of course, man's primitive needs are for food, clothing and shelter, but the forces of modern civilization also prompt him to satisfy that human desire for mental impression—a product of the printed word.

Certainly, economic theory, which is based on the assumption that commercial enterprise grows out of primitive needs for food, clothing, and shelter, must be revised to include two basic wants: namely, printed matter and transportation. Modern mankind must eat, sleep, and protect himself from the elements but (and I say this without intending to pun on a popular expression) he also wants to go places and read things. In these facts we can clearly see the necessity for writing new chapters in textbooks used in many subjects in the field of higher education—particularly civics, sociology, economics, psychology, and philosophy.

Modern man's appetite for printed matter is a phenomenon none of the printing pioneers could have foretold. Imagine the astonishment of Gutenberg upon seeing the new formats of all the modern publications, to say nothing of the tremendous amount of reading matter they contain. Printing indeed has more than filled man's capacity for reading; it has changed his mode of thought, his mode of living.

The printed word is a force such as merits whole libraries of treatment. Because of this force, nations are swung from political lethargy into a passion of super ambition.

Commerce would suffer an unheard of depression if the products of the printing press were to cease to be available; religion would quickly feel the effects of such a circumstance; and public education would regress a hundred years. Without question, those phases of higher education charged with the presentation of the philosophy of social forces and scientific evidence on the extent and nature of social habits should give greater consideration to

printing as a social institution. Teachers of commercial and economic geography and civics should bring more clearly to the attention of public school pupils the importance of printing both as a social force and as an important field of industrial activity.

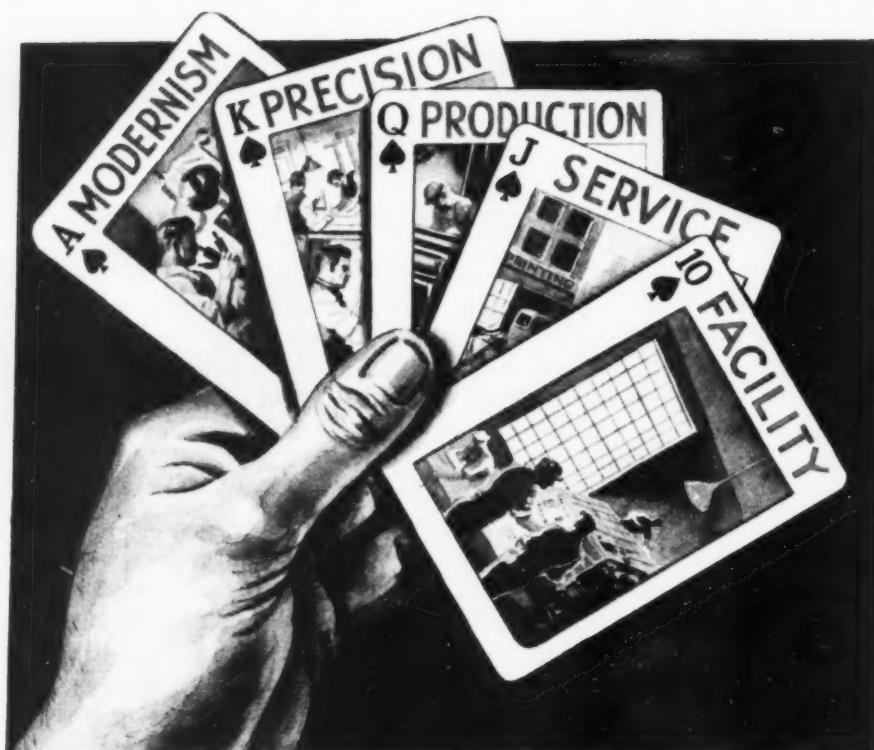
Besides serving society as a medium for increasing knowledge, printing also serves as an economic power through labor. It provides respectable and gainful employment in more than 30,000 widely distributed plants, with half a million persons benefiting from its payrolls.

Numerous types of specialized occupations exist in the printing industry. The skill required in these occupations varies from a small amount to an extremely great amount. Not only is there a wide range of variation in the degree of skill required in printing occupations, but there is also a wide range in the requirements for technical and general knowledge and executive capacity. Varying degrees of training are, therefore, required for successful employment in the printing industry depending upon the specialized occupation engaged in. Here a clear-cut relationship with education can be observed.

At one level of employment in the printing industry we must have men of experience who possess managerial ability. The training of such men must undoubtedly be that which can be provided by colleges specializing in training for management, together with that which the indispensable school of experience can provide. The school of experience alone is no longer sufficient in itself. The



(Continued on page 46)



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THE LENS SYSTEM OF LETTERING

By J. JOSEPH BERGSMANN*

Summary of talk delivered to the Litho Club, Philadelphia, October 25, 1937

ALMOST every discussion of the merits of type will lead to the quality of reproduction proof. As a matter of fact this is a topic of discussion in itself. As such, much has been said and written. To the lithographer and offset printer, especially, the problem of typographic proof has been given much attention. Brought down to essentials, all such discussions arrive at the following general conclusions:

1. Type wears.
2. Type becomes nicked and marred in the case.
3. Edges become burred.
4. Unclean type gives imperfect proof.
5. Perfect impressions are difficult to obtain.
6. Ink smears in drying, or with handling.
7. Type only prints black on white.

These are the major points. Others could be mentioned, but it is not the intention of this discussion to carry such coals to Newcastle. Our purpose is to investigate a process whereby reproduction proofs can now be supplied in such a way that all the old bugaboos have been relegated to the past.

Let us imagine a composition service, working with type faces, but not with type, and we have the key to the question. A process of photo-mechanical lettering, whereby a given type face can be 'set' in sizes ranging from 0.20 of

an inch (body size of caps) through 25 sizes up to 1.20 of an inch (body size of caps). The process permits supplying any given type face beyond the range mentioned, of which we will learn later. So we now have twenty-five (25) distinct sizes against the usual 12 or 14 sizes of foundry type. So perfect is the mechanism employed, and at the same time so flexible is this process in shop practice, it is possible, by turning a thumb screw, to give a character any off size. For example, 37½ point, or if so desired 17/32 of an inch high. By the same token the proportion of a letter can be changed such as illustrated in example No. 1. The maximum change in any one direction is some 80 per cent. This varying change in proportion in any direction can be created with any of the 25 sizes already mentioned. As the maximum change is arrived at by a process of graduation one can readily see possibilities for an almost infinite number of sizes.

To such a process, letter and line spacing are now without limitation, as illustration No. 2 demonstrates.

Not all faces come in italics. Here another limitation is removed. With this new technique, any upright face can not only be 'set' italicized, but, can also be 'set' on a backward slant. See illustration No. 3.

(Continued on page 47)

* Production Manager of Photo-Comp., Philadelphia, Pa.



The Litho Club of Philadelphia Attending an Address on "The Lens System of Lettering"

Printing as an Educational Force

(Continued from page 43)

business world is too complex to be understood by an untrained or narrowly trained person.

The printing industry stands in vital need of skilled craftsmen. In the training of these craftsmen, the public trade school and industry must jointly share responsibilities.

The printing industry is, indeed, modern business. It must maintain a high standard of ethics and be alert to provide the changing tastes with new and interesting treatments. The salesman whose responsibility is to reflect this standard as he bids for business has received in education what few other fields can offer him. Some years ago, it was assumed that a good salesman could sell almost any commodity. But the consumer of printing is a more discreet buyer than he used to be.

The salesman who serves him best will be the salesman who can picture his results. The best printing salesman is the one who has learned more than the science of selling. He has learned printing. His job has forced him to acquire knowledge of what is back of the scenes in his business. He knows the press room, where his product is made.

Another phase of printing which has broadened the abilities of its personnel is the artistic side. Printing producers are paying more attention to typography and many concerns are employing the services of specialists who can tastefully plan and lay out material before it is placed in the hands of compositors. The increasing use of photography in advertising has increased the need for designers. Illustrated advertising matter has increased to such an extent that more designers are needed than ever before. Again we observe a need for training growing out of the graphic arts for which educational facilities must be provided.

Since printing originated as an art, such matters as speed, economy, and technical efficiency were of little concern at first. For many years both early producers of printing and the users of printed products gave little attention to problems of quantity production. But commercialization was inevitable, nor is this commercialization to be too severely denounced, for through the profit motive in printing we have developed technically and mechanically to a point almost unbelievable to those who see for the first time the printing of a metropolitan newspaper or a document such as a city telephone directory. Fortunately, technical progress has often expanded the artistic possibilities of printing. Imagine the educational influence that a further extension of the beautiful color work which is being done in printing today will have upon the artistic taste of the nation as whole! Color printing is likely to do more toward the dissemination of good taste in pictorial design than millions of words of esthetic discussion dealing with precepts and principles.

Although technical developments in printing have gone

a long way, we are really only entering upon a period in which mechanical and chemical engineering, applied to the printing industries, will have far-reaching effects; not only on printing processes but upon society as well. Let me forecast, then, a coming need for men in the field of the graphic arts who can apply principles of engineering to printing production. That we already have a few such men is an indication that more are to come. The great hue and cry among printing producers at the present time (after the decrying of price-cutting competition) centers upon

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the need for development of precision methods and management controls in production. Somewhere in our educational scheme we must train men who can bring the discoveries of science and the principles of management engineering into the printing plant.

Printing as a field of historical research has been of interest in the past only to a limited group of specialists. Archeologists and historians have been more concerned with periods of history that did not know the use of printing than they have been interested in the importance of the discovery and use of printing. This is so clearly true that it is almost impossible to find an authentic account of the discovery of printing, its predecessors, and the development of printing in text-books of general history.

(Continued on page 77)

THE PHOTO-LITHOGRAPHER

(Continued from page 45)

INCREASE
INCREASE

No. 1

REDUCE
REDUCE

CONDENSE
CONDENSE

January



LOOK-UP

Simple
as of hand
accuracy, su
reductive prop
available in any
solution to man
ing problems. Po
suntless other
of lettering
us of tom

No. 2

ITALIC
ITALIC
BACKSLANT
BACKSLANT
Anniversary

No. 3

MAGIC
MAGIC
DOUBLE
DOUBLE

No. 4

Shade

SHADOW

LETTER Perfect!

BBBBBBBBBBBBB
B B B B B B B B B
B No. 5 B
B B B B B B B
B B B B B B B

All these features can be produced because the process of reproduction is one employing photographic principles. Illustration No. 4 shows further extensions of this photo-mechanical process of lettering. The other illustrations explain additional products of this new service. It is true, many of these latter illustrations can be, and have been done in the past. However, additional steps have been necessary, whereas now, for the first time they are 'set' direct; thus eliminating much of the extra cost and time consuming elements. 'Set' direct and supplied on reproduction proof with a high gloss finish, same size or over size for reduction, without the use of type anywhere along the line of production. 'Set' photo-mechanically, from perfectly designed type faces, that have not come into contact with the paper. Technically this means proof with characters which are letter perfect. No round corners, no nicks, clean, perfect 'impression,' no ink to smear, proofed reverse, or black on white. Of special interest to the lithographer and planographer is the fact that the copy or lettering can be 'set' direct on film, and supplied in either positive or negative, ready to strip in with the rest of their copy on film, and expose to their metal plate.

Illustration No. 5 shows what can be done with a letter of a single size. Bear in mind, this can be done with any one of the 25 sizes, and any of their graduated variants. The additional letters are the various other effects obtainable from any size or any of the variants.

Accustomed in the past to ordering by point size and pica rule, the question how to order from this new service can be anticipated. As easy as it is now to get lettering to fill a given area, that is how easy it is to order from this new service. The system permits specifications in point and pica sizes, if the customer wishes to place his order that way. However, now that it is possible to order a height letter, or width—that cannot be had in type—let us say between 36 and 48 point; two drawn lines is all that is necessary to indicate the desired height. The copy will be 'set' to fill that height. This latter method is encouraged, as it allows for much greater latitude in planning the layout.

Truly, such a method is the technique of tomorrow here today. Verily, the layout man's dream of 'elastic type' come true. Such a service, stepping into the center of the graphic arts, stands ready to serve every user of type and lettering in his every day needs. This medium disposes of the many type problems of the past. With such a medium at our command 'type' becomes more than 'type.' It becomes lettering, with all the accuracy, beauty, and speed unattainable by the human hand. On every job, copy now becomes not only reading matter, but in addition, an integral part of layout. By resorting to this service, many layouts that specify straight faces, can now be made ingeniously interesting, transforming what would be a drab layout, into an attention arresting arrangement.

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 J. M. Adams, J. M. Adams Co., Worthington, Minn.
 Frank Antonoich, W. A. Fisher Co., Virginia, Minn.
 Steve Armstrong, Adams Lithographing Co., Chattanooga, Tenn.
 Michael Annick, Wesel Mfg. Co., Scranton, Pa.
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 R. H. Bazold, Sinclair & Valentine Co., 2202 Superior Ave., Cleveland, O.
 Gordon Bartels, G. L. Clark Mfg. Co., Rockford, Ill.
 H. B. Bartels, G. L. Clark Mfg. Co., Rockford, Ill.
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 E. C. Fields, Commercial Blue Print Co., 304 W. Market St., Lima, O.
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(Continued on page 56)

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New Legislation

(Continued from page 17)

In addition there are 17 states having laws which prohibit the sale of commodities below cost. These are known as unfair practice acts and are usually made effective by the injunction method. That is, if a producer is selling below cost of production, an injunction is sought to keep him from so selling and unless he can show his selling price is not below his cost, he may be stopped. In many instances the method of developing costs is set forth. In other instances the courts, in injunction proceedings, have accepted costs developed by trade associations.

In my opinion, it is doubtful if this resale price maintenance amendment to the Anti-Trust Laws reaches the photo-lithographic industry to any great extent except insofar as a photo-lithographer might be able to identify his product by a trade mark or brand name and granting, of course, that the product is produced in a state which has a resale price maintenance law. The above being true, it would be possible, under the resale price maintenance amendment to the anti-trust law, for a photo-lithographer to agree with a distributor of his product that the product should be sold at a certain definite price.

This resale price maintenance law was primarily passed in an attempt to do away with so-called "lost leader sales" where a highly advertised brand named product is sold at a loss in order to attract business.

There were several amendments to the Internal Revenue Act. The principal amendments were for the purpose of preventing tax evasion and avoidance by the use of personal holding companies of one type or another and limiting deductible losses in connection with the sale or exchange of property by members of the same family, etc.

In my opinion this only affects the photo-lithographic industry in remote instances.

So that we find that out of the welter of bills introduced in the last session of Congress that might have affected industry, very few became laws.

Therefore, we find ourselves more interested in what might become law in the future than what has already become law in the immediate past.

As you all know, the President, Tuesday night, October 12, announced that he was calling a special session of Congress to convene November 15. He definitely indicated that the call was primarily for the purpose of having enacted legislation for the help of agriculture. The second object in the call was wage and hour legislation. He also incidentally referred to the desires of industry to have some type of fair trade practice acts.

The most important piece of legislation that industry can look forward to in the next session of Congress is a Wage and Hour Bill which will seek to fix or limit the hours of labor and the wage that is to be paid for labor.

The bill when passed will be effective in that it will prohibit the movement in interstate commerce of goods

unless produced in accord with the labor and wage standards set forth in the wage and hour bill.

In my opinion we are sometime going to have wage and hour legislation. It will be a part of the program for the special session, called for November 15, 1937.

Any wage and hour bill is going to have the support of labor generally and, in some instances, of industry.

There of course will be considerable opposition to any wage and hour legislation. There is evidence of some opposition from labor itself. There has, within the past year, especially in the south, developed a strong opposition to any wage and hour legislation. Whether this opposition will be sufficient to ultimately defeat a Federal wage and hour bill is, in my opinion, questionable.

Although an NRA type of bill is not out in the open at the present time, there will also be introduced in the next session of Congress, possibly the special session, some type of an NRA bill providing in substance for the voluntary combination of elements of industry for the purpose of standardizing and enforcing trade practices under the supervision of a Government agency, granting relief from the monopoly features and resulting penalties of the Anti-Trust laws and so long as the activities of the industry involved are in the public interest, until such time as the industry is warned to cease and desist from the practices involved.

There is a very definite demand for this type of legislation. It comes from some very substantial industrial elements. You have an example of the type of legislation involved in the Bituminous Coal Act. There are other groups, large and small, which would also like to try out some type of NRA formula.

This new NRA type of legislation, although not connected directly therewith, will be a running mate of wage and hour legislation.

The Robinson-Patman Act, from the viewpoint of many, has, to date, worked out successfully. There are others who will dispute this statement.

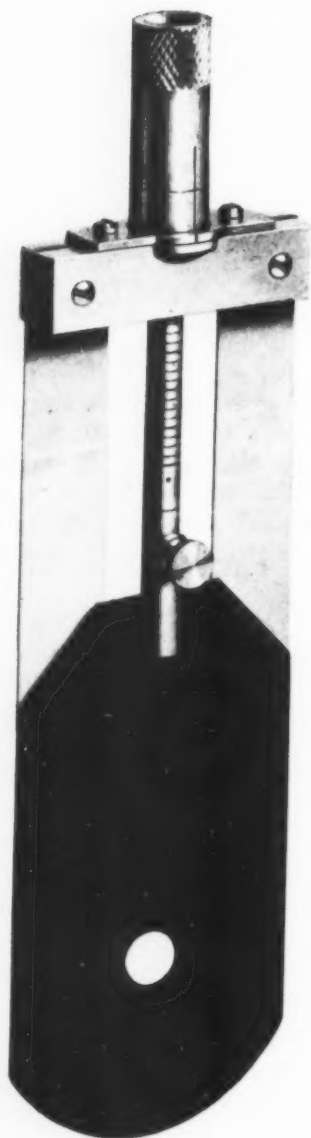
Those industries that have sought to use the Robinson-Patman Act for the betterment of the industry, in my opinion, have found it fairly satisfactory. Those industries that have sought to avoid the effects of the Robinson-Patman Act and have suffered as a result by Government activity in the enforcement of the Act, of course are not satisfied.

I am still of the opinion that the Robinson-Patman Act can be effectively used in the photo-lithographic industry.

The Walsh-Healey Act, which applies to Government contracts, is only to a very limited extent effective in the photo-lithographic industry, due to the fact that it does not apply to a contract unless it involves more than \$10,000.

I will be very glad to answer any questions that I can on any Federal legislation that has been passed or is being considered.

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THE FINAL INSTALLMENT OF A SERIES OF "BRASS TACK" ARTICLES

By WILLIAM WOLFSON

WE NOW come to the last element of the Cadoo System of Selling—that of obscure needs. To refresh your memory, all elements are again listed here:

- C—stands for Contact;
- A—stands for Acquaintanceship;
- D—stands for Demonstration;
- O—stands for Obvious needs;
- O—(final) stands for Obscure needs.

And permit me to quickly sketch an outline of what is meant by obscure needs:

Obscure needs, those not apparent to your prospect, neglected or overlooked.

Therefore, not considered by your prospect, and covered incompletely, inadequately or not at all.

The salesman's task is to open the prospect's eyes to the need or requirement, awaken a keen desire to satisfy it strong enough to avoid the slipping into complacent inertia, and to overcome the shock of an unexpected expenditure.

We approach the subject by pointing out one fact: that most photo-offset business is solicited with the assumption of covering requirements known to the prospect. Indeed, all advertising and direct-mail ordinarily concludes with phrases like "Estimates cheerfully given," and "Let us quote on your requirements."

But the highest type of creative selling depends upon ferreting out needs of which the prospect or customer is unaware or indifferent to. Such work develops a more intimate relationship between the salesman and his customer. The salesman wins respect and confidence; and it is he who is favored with the orders.

Like most elements in selling, obscure needs are not concentrated in a definite center of activity. There are minor as well as major factors. For example, a dress manufacturer sticks to a one-page circular on 20-lb. white sulphite bond run in combination, and he uses line drawings for further economy. These he mails to department store buyers. When questioned, he reveals that such circularizing does not bring him much, but he feels that he should send out something to the buyers once in a while.

Evidently he reasons that inasmuch as no profitable returns are forthcoming, what advertising he does should be kept down to a minimum expense. And so he uses cheap stock, cheap illustrations, typewritten text, etc. The salesman accepts such orders, and proceeds along the lines of obvious needs.

Nevertheless, even in so elementary a phase, an obscure need exists. Certainly, were buyers to regard the offerings of this manufacturer as desirable (and the price range does not matter) his mailings would yield better results. It is up to the salesman to arouse his interest, his pride in his own wares, and to present them to buyers in a more effective fashion.

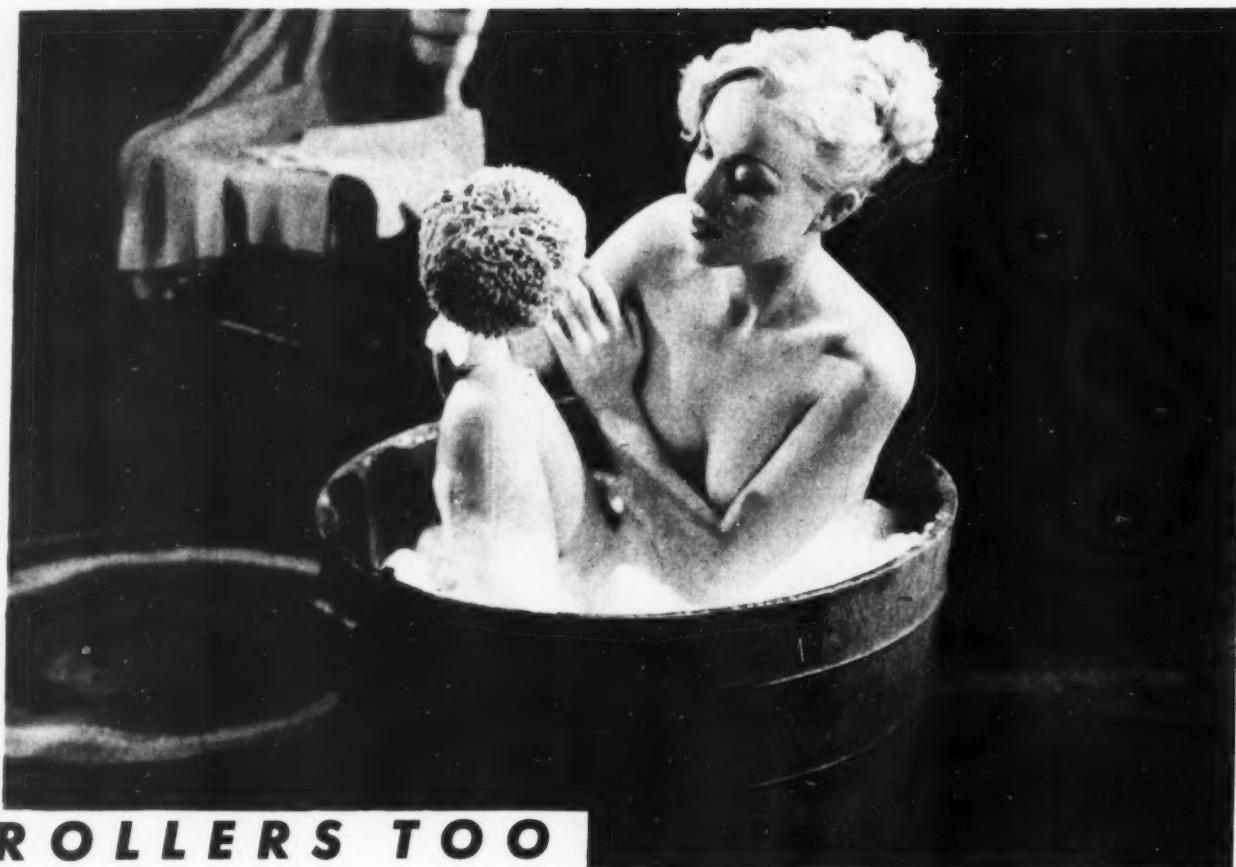


This involves wash-drawings, highlighted half-tones, incidental artwork, fine typography, a higher quality paper stock, pleasing layout. In this simple case please note that more money is called for. It means a bigger order for the salesman and his house, a greater amount in commissions; but, on the other hand, it may mean greater prestige for the manufacturer, the beginning of a heavier volume of business from his mailing list of buyers.

Note, too, that the salesman no longer is selling photo-offset lithography alone but an idea. Now, let us assume he persuades the manufacturer to order a fine tailor-made job, perhaps one in color. That single order may not bring the returns anticipated; and if this occurs, what is his standing with his customer then?

Therefore, the salesman must anticipate. Right at the start he must discuss all angles with his man. He might let him know that when a firm in the same line moves out of dingy, cramped quarters to a new and better location, with an up-to-date showroom, and all the fancy fixings and trimmings, that firm would not move back again to the old premises because business does not immediately boom.

The manufacturer embarks upon a finer ship headed for the ports of bigger profits when he thus improves his



ROLLERS TOO

Become Objectionable

. IF NOT CLEANED

There's nothing takes the place of the good old-fashioned "Saturday night" scrubbing if you want to keep your friends and make new ones.

Even Litho-Print rollers need cleaning once in a while, the frequency depending upon the accumulation of dried ink in the surface pores. A fortnightly tub refreshes.

In the growing chorus of enthusiasm for these efficient Offset Rollers, there have been but few sour notes. When investigated, every one was found to be based upon lack of cleaning.

A good lye and hot water soaking for an hour, followed by a clear water rinse, removes all trace of "B. O." (bad oxidation)—and then the offending rollers are out of the doghouse, functioning properly and their popularity restored.

Try this on your own Litho-Print rollers. You'll be pleased with the results.

Don't use lye or water on cast composition rollers. Either will destroy them.

For those who prefer Offset Rollers made of vulcanized oil, we have them; and as is usual with Bingham's, better than those made by others.

SAM'L BINGHAM'S SON MFG. CO.

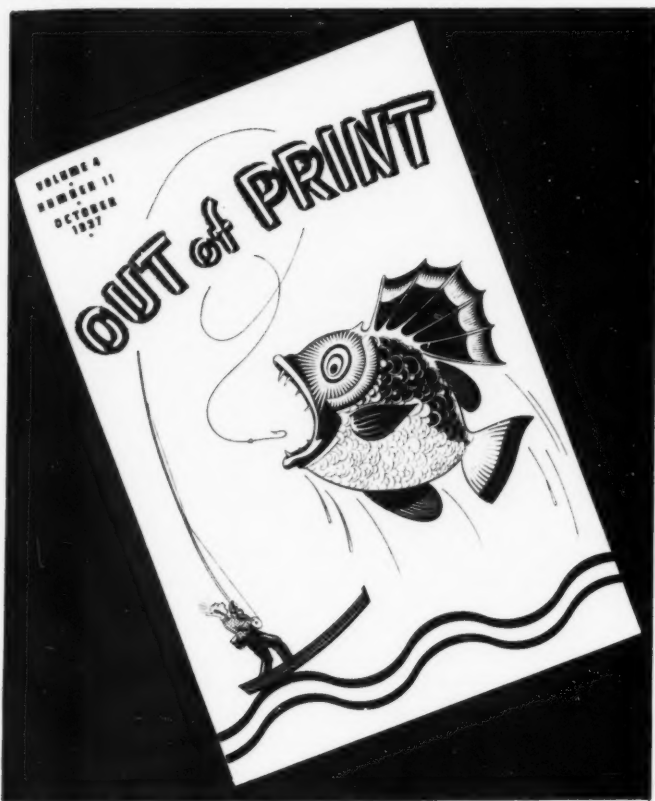
ATLANTA	DES MOINES
CHICAGO	DETROIT
CLEVELAND	DALLAS
NASHVILLE	HOUSTON



INDIANAPOLIS	MINNEAPOLIS
KALAMAZOO	PITTSBURGH
KANSAS CITY	SPRINGFIELD, O.
ST. LOUIS	OKLAHOMA CITY

advertising material. Pride of ownership should be inculcated. Pride in the things that are produced by photo-offset lithography.

Pride of ownership is a study in itself. I have written on the subject, which appears in the current issue of a house organ, "Out of Print." A copy of this will be forwarded to inquirers as long as copies are available. I append a few excerpts:



"Imitation exerts a potent influence. There are people who will not rest until they possess what others wear and use. So style flourishes. A stockinged big toe poking through a seemingly unfinished feminine shoe to me is an ugly thing; but that is the present fad among women. What the great and near-great have is wanted by the masses."

Comments: Include the principle of imitation in your sales-talk. Where possible, show specimens of what the big fellows in the manufacturer's field are doing. Be prepared to combat the argument "Yes, but they can afford it, I can't" with logical explanations. You might counter with, "They always used the finest kind of direct-mail, and that is one of the reasons they are in the position they occupy in the industry."

"Pride of ownership extends to practically everything under the sun. Ownership covers not alone personal property but relationships actual or imagined. Thus, 'My doctor,' 'my attorney,' 'my so-and-so' are frequently heard; and a ready listener gets an ear-full."

Comments: When you arrive at a point where a customer refers to you as "My photo-offset man," be assured that

competitors will have a hard job in getting the account away from you. Moreover, you have an individual who will go out of his way to praise you, one who will strive mightily to convert others in your behalf. When such a customer suggests you go and see a prospect to whom he has spoken about you, then you are certain to be welcomed, your suggestions accepted.

"Adoption is another principle. 'To adopt' is to accept, receive or choose as one's own. There may or may not be definite merit in what is adopted. For example, an executive might have purchased a big, expensive globe of the world for his office, for it is a nice thing to have about. The chances are, however, the true, secret reason he bought was because of the opportunity to display it near him, and because he feels akin to men of learning in a sphere outside of his own.

"Again, an advertising man will pay seven or ten dollars for an architect's proportional dividers. In this instance, he not only possesses a practical working tool used often in creation of layouts; he has a pleasant feeling of being somehow associated with architecture. And he keeps the device on his desk in the hope some visitor will inquire about it."

Comments: Be on the alert to detect such exhibits. You can get your man to "open up" by referring to these. You will find that such men are easier persuaded to adopt other things, if you suggest them in a subtle manner.

There is so much to selling creatively on the path of obscure needs, that the space allotted in these pages appears meagre. How the salesman goes about it requires a volume. Still, I can give you some practical hints.

You can take advantage of your own knowledge and experience. You might go further and do a good deal of personal research work. By all means, and no matter what you determine to do, be sure to keep your eyes open, your mind alert—and your commonplace, daily activities will bring you much that you can use in selling of this character.

Perhaps you were formerly employed in a different line of business. How much do you remember? To whom can you apply for further information? What are the obvious needs of that business? What are the obscure needs—or if you do not know, how can you go about to find out?

Your own ability along definite lines of development can help you. Can you lay out circulars, folders, etc., pleasingly? It may be some customer or prospect you know has a need for such specialized skill, but does not know he needs it. Perhaps you can write good selling copy.

In addition to abilities inherent in yourself, now consider outside sources. You might take things done in the plant every day. Take booklets, for example. Hundreds and hundreds of business firms never used a booklet. Needless to say, you must understand booklets before you are able to perceive a need for them by some prospect. You cannot say "Every company needs a booklet, let us lithograph one for you," and expect such a general ob-

Members and Guests Who Attended N. A. P. L. Convention

(Continued from page 49)

- H. C. Ingram, Sackett & Wilhelms, Long Island City, N. Y.
M. E. Jones, Hammer Dry Plate & Film Co., St. Louis, Mo.
E. Jackson, Brigdens, Ltd., Toronto, Ont., Canada.
William H. Jensen, Dando Schaff, 52d & Arch St., Philadelphia, Pa.
H. H. Jewett, H. A. Rogers Co., 911 Mary St., Minneapolis, Minn.
Ernest E. Jones, Graphic Arts Corp., 1104 Jackson St., Toledo, Ohio
Royal R. Jones, Jones & Company, 809 Baltimore Ave., Kansas City, Mo.
William R. Joyce, Inland Printer, 205 W. Wacker Drive, Chicago, Ill.
E. G. Karge, Northern Litho. Co., 2340 N. Racine Ave., Chicago, Ill.
Jessie M. Kehoe, Kehoe & Lau, Chicago, Ill.
M. M. Kingery, Foto-Lith, Inc., 2060 Reading Rd., Cincinnati, Ohio
T. Milton Knowles, Knowles Litho Co., 6 Weston St., London, Canada
Gordon P. Kelley, Miehe Printing Press & Mfg. Co., Chicago, Ill.
Philip J. Kober, Northern Litho. Co., 2340 N. Racine Ave., Chicago, Ill.
Anton J. Kurz, Herbick & Held Co., 1117 Wolfendale, Pittsburgh, Pa.
Wm. E. Kemp, Lithograph, Ltd., Toronto, Canada
Hobart Keppler, Nation, Robinson, Printers, Inc., Muncie, Ind.
W. Edward Kneale, The Kneale Printing Co., Cleveland, Ohio
Wm. A. Kreuger, Jr., W. A. Kreuger Co., Milwaukee, Wisc.
Robt. Lang, Standard Register Co., Dayton, Ohio
Albert Latzer, Tri-City Blue Print Co., Moline, Ill.
V. Lobashie, London Prtg. & Litho., Carling St., London, Canada
Clifford N. Lovenheim, Great Lakes Press Corp., 41 So. Water St., Rochester, N. Y.
A. Lutz, Ultra Photolithograph Co., 1029 Western Ave., Pittsburgh, Pa.
Mildred K. Lau, Kehoe & Lau, Chicago, Ill.
E. M. Lamson, Gray Printing, Fostoria, Ohio
L. P. Lebeau, La Lithographie du St. Laurent, Montreal, Canada
Mr. Leder, Cleveland Heater Co., Cleveland, Ohio
George E. Loder, Nat. Assoc. of Photo-Lithographers, New York, N. Y.
Carroll Lovelace, Edwards Bros., Ann Arbor, Mich.
C. B. Leedy, Gray Printing Co., Fostoria, Ohio
Walter E. Lange, Lange & Preu, Inc., 418 W. 25th St., New York City
Walter E. Lange, Paterson Parchment Paper Co., Bristol, Pa.
Frank J. Lagueruela, Havana, Cuba
Chas. E. Mallet, Rand Avery Supply Co., Boston, Mass.
Nelson McCarthy, Compso-graph Co., 3832 E. Grand Blvd., Detroit, Mich.
Brodie MacPherson, Harris Litho., 172 Walmer Rd., Toronto, Canada
Phil S. Morse, Graphic Arts Corp., Toledo, Ohio
Alfred L. Malchow, Harrison & Smith Co., 520 Washington Ave., No., Minneapolis, Minn.
M. L. Mann, H. S. P. Co., Cleveland, Ohio
Malcolm McComb, Eastern Lithographers Assn., New York City
Wm. Guy Martin, Harris-Seybold-Potter Co., 343 So. Dearborn St., Chicago, Ill.
Joe Masura, Douglas Litho., 220 West Congress St., Detroit, Mich.
Joseph W. Miller, Hammer Dry Plate & Film Company, St. Louis, Mo.
Herbert A. Mathias, A. H. Mathias Co., 310 Fifth Ave., Pittsburgh, Pa.
W. Floyd Maxwell, L. N. A., 295 Madison Ave., New York City
Myron T. Mosen, Thormod, Mosen & Son, Inc., Chicago, Ill.
Walter P. Moak, Chandler & Price, 6000 Carnegie, Cleveland, Ohio
C. R. Moore, Jr., Arrow Press Corp., Pittsburgh, Pa.
Louis B. Montfort, Attorney, Washington, D. C.
R. A. Morman, John S. Swift Co., Inc., 909 Midland Bank Bldg., Cleveland, Ohio
Stanton Mott, Walden Sons & Mott, Inc., New York
Jack Myles, Allan B. Croke Co., Boston, Mass.
R. N. McCracken, Gray Printing Co., Fostoria, Ohio
R. K. MacNeal, Harris-Seybold-Potter Co., Cleveland, Ohio
James Malloy, Edwards Bros., Ann Arbor, Mich.
Oscar D. Mardis, Peterson Lithograph & Printing Co., Omaha, Nebr.
Kenneth W. Martin, Harold M. Pitman Co., Jersey City, N. J.
G. H. Mason, Western B. & C. Office Supply Co., Oklahoma City, Okla.
R. E. May, R. E. May Inc., 1011 Power Ave., Cleveland, Ohio
A. G. McCormick, Jr., McCormick-Armstrong Co., Wichita, Kansas
Louis Milardo, Edwards Bros., Ann Arbor, Mich.
Carl Miller, Jr., Douglas Printing Co., Jacksonville, Fla.
E. Meher, The Douthitt Corp., Detroit, Mich.
Ford D. Matthews, Gray Printing Co., Fostoria, Ohio
E. B. Martens, Boro Photo-Lithographers, Inc., 25 Lafayette St., Brooklyn, N. Y.
Eno Nation, Nation, Robinson, Printers, Inc., Muncie, Ind.
John Nuss, Standard Printing Co., Hannibal, Missouri
Vernon M. Norr, Wash. Planograph Co., Washington, D. C.
D. O'Connor, Lanston Monotype Machine Co., Philadelphia, Pa.
James F. Oastler, John S. Swift Co., Inc., New York City
Ferdinand J. Obeck, R. M. Hollingshead Corp., Camden, N. J.
Kenneth Olderman, Commercial Blue Print, Lima, Ohio
D. V. Olsen, Schmidt Letter Co., San Francisco, Calif.
O. M. Oldfather, American Cotaprint Corp., 1909 Euclid Ave., Cleveland, Ohio
W. L. Palmer, W. H. Fisher Co., Greensboro, N. C.
E. A. Pogalies, The Ad Service Engraving Co., Cleveland, Ohio
H. A. Porter, Harris-Seybold-Potter, Cleveland, Ohio
Walter Paavola, National Lithographing Co., Detroit, Mich.
Minter A. Pickering, Fuchs & Lang Mfg. Co., New York City
Irv. Pries, Wm. J. Keller, Inc., Buffalo, N. Y.
Herman H. Pruser, Jr., Western Electric Co., New York City
H. A. Pease, National Process Co., 75 Varick St., New York City
Ralph H. Randall, Page's, Oklahoma City, Okla.
William Recht, Rutherford Machinery Co., New York City
J. W. Rollman, Intelligencer Printing Co., Lancaster, Pa.
Lee B. Rosenstadt, Ardlee Service, Inc., New York City
E. J. Ryan, Buehler Printgraph Co., Cleveland, Ohio
Robt. Roder & Mrs. Roder, Roder Lithographing Co., Canton, Ohio
B. H. Rogers, H. H. Rogers Co., Minneapolis, Minn.
J. L. Roser, Morgan Litho. Co., Cleveland, Ohio
D. A. Ross, Douglas Offset Printing, Detroit, Mich.
Charles W. Rook, Washington Plano Co., Washington, D. C.
Edward D. Raddatz, Horn & Norris, Inc., 2729 Prospect Ave., Cleveland, Ohio
J. O. Sanker, U. S. Playing Card Co., Cincinnati, Ohio
Merle S. Schaff, Dando Schaff, Philadelphia, Pa.
Werner W. Schaumann, The Copifyer Corp., Cleveland, Ohio
E. G. Schreibeis, Rutherford Machinery Co., New York City
S. M. Sears, A. T. Howard Co., Boston, Mass.
K. H. Sloan, Harold M. Pitman Co., Jersey City, N. J.
J. B. Smith, Jr., Photo Reproduction Corp., New York City
R. F. Smith, Lithoprint, Toronto, Canada
Leslie S. Solar, Acme Printing Co., Chicago, Ill.
John E. Sowers, Sowers Printing Co., Lebanon, Pa.
A. H. Spaulding, Spaulding-Moss Co., Boston, Mass.
Jack J. Spring, Philip A. Hunt Co., Brooklyn, N. Y.
P. H. Staub, Merck & Co., Rahway, N. J.
W. A. Stevens, Jr., New York City
Murray N. Stewart, Ideal Roller & Mfg. Co., Cleveland, Ohio
C. E. Saddler, Lima, Ohio
Walter Sauer, N. O. Engraving & Electrotype Co., Toronto, Can.
E. F. Saldrow, Norman Willets Co., Chicago, Ill.
Henry Schwarz, The Fuchs & Lang Co., Chicago, Ill.
Philip W. Senzel, Great Lakes Press Corp., Rochester, N. Y.
C. Small, Offset Lithographer, Inc., Ashland, Ohio
Eugene F. Snyder, Washington Plano., Washington, D. C.
Clem Smolinski, Multigraph Co., Milwaukee, Wisc.
Edw. J. Spahn, Geo. G. Fetter Co., Louisville, Ky.
S. Staley, Brigdens, Ltd., Toronto, Canada
Jack C. Stein, Stein Printing Co., Atlanta, Ga.

(Continued on page 60)

ervation to win you a nice order. But, after acquiring specific facts relative to the business of a prospect, after you come to understand just how a particular kind of booklet can function as a silent salesman for that prospect, you may be able to put it over.

Let me give you one last illustration of supplying obscure needs, just to show you to what extent in research and reasoning you must go if you are to sell in this direction. There are a limited number of honest service houses in a gigantic industry of a big city. These houses provide a service deemed a necessary evil by the manufacturers; and the manufacturers look down upon them, sneer at them, treat them with less respect than they do a bootblack who shines their shoes.

Furthermore, racketeers invaded the service. These racketeers quoted ridiculously low rates, impossible rates, and rendered nothing in return. It was just a question of carting away some stuff, and returning it, with nothing done; but the nature of the service was such that this was not apparent. Therefore, the racketeers could effect quicker deliveries, and their only costs were trucking costs; no machinery, materials or labor.

The legitimate service houses were oppressed, but could not do anything to help themselves. True, they recognized a need for surmounting the obstacle in their way; and were ready to try anything that would relieve and eliminate the condition; and, yet, the need supplied by printed matter was obscure and not recognized by them.

I mention "printed matter." It was immaterial whether done by letterpress or photo-offset. And for the salesman who discerned the need, and showed them how to utilize such printed matter, the reward was an enormous and constant flow of printing orders.

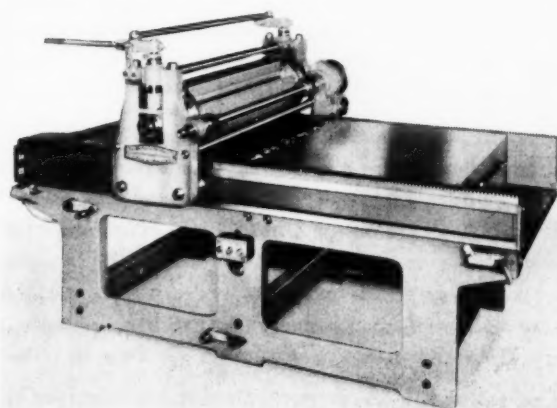
Here is what that salesman accomplished: 1) Getting the legitimate service houses to band together in an association. (Stationery, folders and other things for the association followed.) 2) Letterheads, bills, labels, all advertising material of each individual member altered to include an emblem. (More business for the salesman.) 3) An elaborate booklet that was mailed to the retail trade of the manufacturers served. (A fine order for the salesman.) 4) Follow-up folders and other things. (Still more business for the salesman; and all regular business from this group of service houses who now respect him highly, and consult him on their own problems.)

The complete details, and the clever manner in which the salesman "broke" this case I cannot reveal. His plan, however, worked. Nothing evolved by an efficient public relations counsel could have accomplished more. I give a bare outline because I promised to keep details a secret. But the outline, by itself, stresses that in covering obscure needs the salesman must often go way beyond conventional routine. Just how far depends upon the ability and the initiative of the salesman, himself.

The PROOF Is Copy to You

IT CAN make or mar a job because no job possibly can be better than the copy.

Start right . . . to assure perfect results . . . with this proof press.



Precision Built Throughout

Has specially designed base of extra sturdy construction, completely balanced.

The motor arrangement on side of press is of a new and improved type that eliminates all possibility of vibration. The press is free on top so that impression on cylinder is always visible to the operator.

The printing bed, being adjustable, will accommodate up to four inches thickness and is equipped with a dependable clamping device for plates.

The stationary bed has a special gripper arrangement which positively holds sheet. It is equipped with our latest improved type front and side gages, assuring the most accurate register.

Write for particulars

CHARLES WAGNER LITHO MACHINERY CO.

Division of NATIONAL-STANDARD CO., Niles Mich.

51-55 PARK AVENUE, HOBOKEN, N. J.

Shafts That Reach the Mark

EFFICIENT management of any trade association never can be a cold-blooded, impersonal matter. It requires the help of certain good fellowship qualities that are part of its life blood, even though they may be minor requirements in other business enterprises.

One of the most important of these qualities is appreciation of unstinted and sincere efforts to benefit the membership, even beyond the letter of any membership agreements. Such expressed appreciation brings the headquarters activities of the Association into the category of shafts that have reached the mark, have scored hits, rather than of seemingly random shots that might just as well have been fired "into the blue" as far as known results are concerned.

When reports, cost data, surveys, and other information, compiled at the expense of much painstaking work, and *The Photo-Lithographer* elicit from members of the National Association of Photo-Lithographers appreciative remarks such as the following, the reaction at Association headquarters is to redouble, if possible, the efforts to make membership in the Association worth many times its cost.

The following excerpts from letters received by the Executive Secretary recently are typical of many more received throughout the year. They are published not as bouquets to any one person or group (for *The Photo-Lithographer*, the surveys, reports, and all the rest of the Association benefits are the result of the cooperation of many people and many groups), but to help "close the sale" of Association membership to those who are not now enjoying its great advantages.

C. Parker Loring Says:

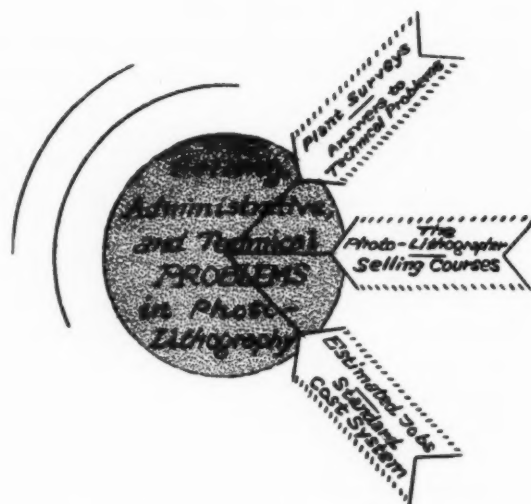
"Allow me to compliment you on your very fine work for the photo-lithographic industry. Let me say that in any field with which I have ever been connected, never have I seen or heard of any published helps which could stack up with the ones you have published for this industry."

A. F. Greiner, M. E. Says:

"Let me express my sincere appreciation of what you are doing for photo-lithographers in computing and issuing these prices to the trade at large. Dissemination of such knowledge is bound to bring stabilisation of the trade itself. At present, I am not actively engaged in the lithography field but I keep in touch with what is going on. I wish to congratulate you, on this occasion, on the success you are having in leading the NAPL ahead in the parade of the graphic arts."

The Copifyer Corporation of Ohio Says:

"I have received your survey made by the lithographic consultant. It certainly is very interesting and very helpful. We want to thank you very much for sending this report to us."



The Columbia Planograph Company, Inc. Says:

"I believe that your method of disseminating information in the manner that you have done is highly laudatory. It enables the apprentice to absorb at once this knowledge without the tedious process of discovering it through months and years of learning in the hard school of experience. It enables the already trained mechanic to check against his own method and to adopt the better of the two. You are doing splendid missionary work."

A. T. Howard Company Says:

"I wish to acknowledge receipt of your plant survey and would say that our organization will be very glad to receive any information of this kind, which I am sure will be helpful."

Tri-City Blue Print Company Says:

"We appreciate very much receiving the bulletins which you issue from time to time containing information that aids us in conducting our photo-offset printing department. We also would like to take this opportunity to tell you that we think the monthly magazine, *The Photo-Lithographer*, is of very valuable assistance to us."

C. W. Hill Printing Company Says:

"We appreciate very much the service we are getting from the Association; the cost figures and other information that you have sent us, together with the selling-prices, are very valuable."

The Gray Printing Company Says:

"We want to thank you very much for your letter of the 11th together with a report of the survey made by the lithographic consultant. This report is very good and covers many questions and their answers that so frequently bob up in the Offset Department. I think reports like these will be very valuable and helpful to every photo lithographer."

Hanson Blue Print Co. Inc. Says:

"We are in receipt of your letter of the 11th and also the pamphlet and wish to express our thanks for these and for the information contained therein, which is very useful to us."

We are all very ardent admirers of *The Photo-Lithographer* and appreciate all of the information that you have been sending to us from time to time. We hope that we will have the pleasure of a continuance of this information.

We are very glad to have our membership in the Association and if we can be of any further service, just let us know."

General Printing Company, Inc. Says:

"At this time, I want to express my appreciation for the number of things which you have done for us whenever we have called upon you. I feel that my membership in the Association has been most worth-while and want to assure you of my continued support."

Cullom & Ghertner Company Says:

"Your recent letter enclosing report of partial survey of the plant is very much appreciated, and I believe that the information therein will prove of great benefit to us, especially in connection with the graining."

By all means, we would like to receive information which you send out, and in fact we will feel hurt if we don't get it."

Hart Printing Company Says:

"We received the survey you sent us and wish to thank you very much for your thoughtfulness. It so happens that this information will help us a great deal and will come in mighty handy in our plate making department."

If you should happen to get hold of any more of these in the future, by all means count us in.

I am inclosing three names to which please send The Photo-Lithographer."

The Mutual Press, Incorporated Says:

"We have received the various cost information sheets, estimated jobs, and also the copy of a survey with your letter of the 11th, and just want to tell you it is all valuable information and greatly appreciated, whether we take the time to acknowledge each individually or not."

The report on the survey was of special interest as the problems mentioned are all too common to most plants. It hit us particularly

as most of the troubles were just a 'history' of our early efforts in the photo-lith game."

Cookware Company of America Says:

"I am glad to have this opportunity to write to you about your magazine and to recommend one person I think will be able to use a subscription. We have enjoyed every issue, and we pass it around among those who are responsible for the operating of our little printing shop, those who do the buying for it, and others who operate the Multilith itself. We have had many suggestions from your issues and many things that have inspired our operators to do better work and to branch out into experimental work which has brought out some effective and rewarding results."

Mathews Printing & Lithographing Company Says:

"It is really a pleasure to mail you a renewal to The Photo-Lithographer."

It may be on account of photo-lithography being a hobby of mine, but of all the trade publications I subscribe to, I look forward each month for The Photo-Lithographer and go through it from cover to cover."

Permit me to congratulate you on its steady growth and the interesting articles in each issue."

Gage Printing Company, Ltd. Says:

"Your letter with its accompanying report has made the rounds of the shop and has been endorsed by every practical man in the place as a work that should be amplified to the extent of the Association's ability to collect such material."

In the great revival of lithography in its present day applications, this sort of information is both stimulative and productive. It cannot fail to do much for the further progress of the art."

Join THE NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS and Profit

Some of the Services You Will Receive — When Your Application Is Accepted

COST DATA—Knowing your costs is a requisite for success. The Association will supply you with accurate cost data, including cost forms designed especially for photo-lithographers.

ESTIMATES—Regularly N. A. P. L. headquarters will send you an estimate, based on average cost figures, with an actual sample of the finished job. Members have found this service very helpful in increasing the efficiency of their estimating departments.

TECHNICAL—Survey data on troubles found in lithographic plants will be sent you periodically. This data is practical, is based on actual conditions. This service alone has been the means of members saving hundreds of dollars in production time.

SALES HELP—You will receive periodically lessons in selling and shop practice, in booklet form, in addition to The Photo-Lithographer.

MISCEL.—You will receive other information of a confidential nature concerning competitive trends, legal rulings, etc., that vitally concern photo-lithographers.

FILL OUT AND MAIL TODAY!

Date
NATIONAL ASSOCIATION OF
PHOTO-LITHOGRAPHERS,
1776 Broadway, New York, N. Y.

Please send us more information concerning
membership in your Association.

Our press equipment consists of:

No. of Presses	Make of Press	Size of Press
.....
.....
.....
.....
.....
.....

Firm
Address
Individual
Position

black
IN THE SOLIDS
gradation
IN THE TONES
That's
Trump Black

TRY TRUMP BLACK on a type reproduction. See how sharp stands out each hairline, how black and crispy clear each letter.

TRY TRUMP BLACK on halftone reproductions. Note how the ink shows dense in the solids; follow the imperceptible gradations of tone through to the highlights.

Satisfy yourself that Trump Black meets your most exacting standards. Then settle on Trump Black as your standard offset black.

R. S. Williams Co.

INCORPORATED

Fine Litho and Printing Inks

257-65 West 17th Street, New York

**Members and Guests Who Attended
N. A. P. L. Convention**

(Continued from page 56)

Chas. Stevenson, Hall Bros., Kansas City, Mo.
Kenneth Strickling, Beurmann & Marshall, Lansing, Mich.
Edward Stuart, Robt. Duncan Co., Hamilton, Canada
Fred L. Siggins, National Lithograph Co., Detroit, Mich.
A. C. Shively, Harris-Seybold-Potter Co., Dayton, Ohio
August Smith, The Newell B. Newton Co., 130 Huron St., Toledo, Ohio
Max Teuber, The Gevaert Co. of America, Inc., Chicago, Ill.
Edwin H. Tiemeyer, The Mail-Way Advertising Co., Cincinnati, Ohio
Ronald Taylor, London Prtg. & Litho., London, Ontario, Canada
P. B. Terry, Spaulding Moss Co., Boston, Mass.
A. W. Tipler, Atlas Lithographing Co., Pittsburgh, Pa.
J. W. Valiant, Harris-Seybold-Potter Co., New York City
George N. Voorhees, Advertiser Publishing Co., Ltd., Honolulu, Hawaii
S. G. Vrooman, Vrooman-Fehn Associates, Ltd., Toledo, Ohio
George R. Vrooman, Vrooman-Fehn Associates, Ltd., Toledo, Ohio
William J. Volz, Sackett & Wilhelms, Long Island City, N. Y.
H. H. Walcott, Standard Register Co., Dayton, Ohio
J. E. Walden, Walden, Inc., Chicago, Ill.
A. T. Walker, Harris-Seybold-Potter, Cleveland, Ohio
E. O. Wallace, American Lithographing & Printing Co., Des Moines, Ia.
Mr. & Mrs. Ralph H. Wilbur, The Tudor Press, Boston, Mass.
Earle B. Wilson, State Journal Co., Lincoln, Nebr.
W. J. Witte, Sinclair & Valentine Co., New York City
E. C. Wagner, Federal Litho., Detroit, Mich.
Penn R. Watson, Wm. J. Keller, Inc., Buffalo, N. Y.
L. V. Waughtal, University of Missouri, Columbia, Mo.
George J. Wetzel, Wetzel Printz, New Orleans, La.
Jos. W. Wilhelm, National Lithographing Co., Detroit, Mich.
J. V. R. William, Sackett & Wilhelms, Long Island City, N. Y.
W. C. Williams, Federal Lithographing, Washington, D. C.
Wm. Ray Williams, Wash Planograph Co., Washington, D. C.
Earl Walker, Edwards & Franklin Co., Cleveland, Ohio
James W. Woods, Copeland-Chatterson Ltd., Brampton, Ont., Canada
Ollie Watson, Bridgens Ltd., Richmond St. at Univ., Toronto, Can.
R. Weber, Douthitt Corp., Detroit, Mich.
Ervin Weil, Keller-Crescent Co., Evansville, Ind.
Bruno Walters, Ultra Photo-Lith. Co., Pittsburgh, Pa.
Ted Yelf, London Printing & Litho Co., London, Ont.
Wm. Zimmerman, Rutherford Machinery Co., New York City

THREE REASONS WHY

*every one who sells to lithographers should
advertise in The Photo-Lithographer.*

1. It is thoroughly read both by the men who buy — in the office, and by the men who have important influence in the matter of what should be bought — in the shop. They appreciate its instructive and educational editorial content covering all phases of photo-lithography.
2. It is 100% lithographed. 100% agreement between editorial policy and actual production.
3. It gives wide and complete coverage of the entire industry.

THE PHOTO-LITHOGRAPHER

THANK YOU, JOE

The Association is indebted to Joseph E. Machell for his whole hearted cooperation in the technical discussions session at the recent convention.

Joseph E. Machell has been active in lithography for the past 30 years. His first job was with the Schmidt Lithograph Company, Oakland, California, in 1907 where he worked under the supervision of Charles and Louis Traung.

In 1919 the Traung brothers (twins, by the way) started the American Carton Company in Stockton, California, and Mr. Machell became foreman of their pressroom. It was in this institution that the first 2-color 65" offset press was used.

In 1922 Mr. Machell left Stockton and engaged in business for himself in Sacramento where he continued until 1926 at which time he disposed of his interest and returned to the Traung organization, again becoming foreman of the pressroom. It was here that the original experiments and the development of the first practical 4-color offset press were carried on.

The Traung Lithograph Company of California merged with the Stecher Lithograph Company of Rochester, N. Y., in 1933 and Mr. Machell was sent to Rochester to take charge of production at the Rochester plant, following methods and utilizing the experience in 4-color label work developed at the California plant.

Mr. Machell's contact with all phases of lithographic procedure has been very comprehensive. The plant of which he has charge in Rochester has several 4-color presses, 2-color presses and singles. They do labels, cartons, booklets and general display work, although their principal business is labels. They are, perhaps, the only lithographic plant in the country which coats its own label paper. They have a complete coating plant for this purpose and supply their California plant with coated paper as well.

Mr. Machell is in entire charge of all the Rochester plant activities and is considered one of the country's most practical and experienced offset authorities. This plant is probably the most up-to-date and scientifically run lithographing establishment in the United States.

Thompson Promoted

Mr. Arthur S. Thompson, Sales Manager of the Geo. H. Morrill Co., Division of General Printing Ink Corporation, has been appointed General Manager to succeed Mr. L. S. Allstrum.

Mr. Allstrum, as Vice President of the General Printing Ink Corporation, will continue to exercise general executive duties.

NOVEMBER 1937



"AH!...that's the label"...

The man who produced the first photolithographic job might have said that too, for Mallinckrodt Photo Chemicals were being manufactured when photo lithography was in its infancy. Now the line is Photo-Purified, Chemically Perfected, adjusted to suit the needs of lithographers. Free-Flowing...easy-to-handle, Mallinckrodt Chemicals save time and annoyance in measuring and weighing... uniform and dependable.

THE LINE

ACIDS	IRON CHLORIDE
Acetic, Chromic Citric,	Sulfate
Gallic, Lactic, Phosphoric	PARAFORMALDEHYDE
ALBUSOL* (Albumen)	PICTOL* (developer)
ALUM POTASSIUM	POTASSIUM BICHROMATE
Chrome Potassium	Bromide Iodide
AMMONIUM BICHROMATE	SILVER NITRATE
PHOTO COLLODIONS	SODIUM BICHROMATE
ETHER	Bromide
HYPORICE* (Rice-like Hypo)	Carbonate
HYDROQUINONE	Sulfite
IODINE	ZINC STEARATE

* Trade Mark Reg. U. S. Pat. Off.

Mallinckrodt

CHEMICAL WORKS

SECOND & MALLINCKRODT STS., ST. LOUIS, MO.

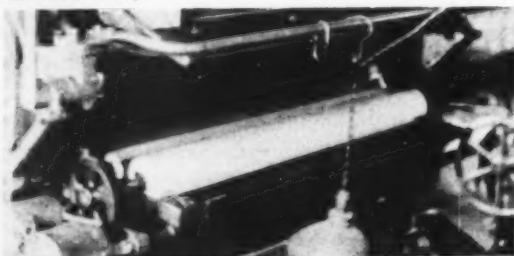
72-74 GOLD STREET, NEW YORK, N. Y.

CHICAGO
PHILADELPHIA

TORONTO
MONTREAL

"AQUATEX" ... New Seamless Dampening Cover

(PATENT APPLIED FOR)



This installation has been in operation for two months with the same set of dampening rollers. Details of company sent upon request.

"AQUATEX" is better because—

1. It is seamless.
2. Better water distribution.
3. Longer runs.
4. Ease of installation.
5. No fuzz or lint.

When ordering indicate size by diameter of rollers—

#1 "AQUATEX" to fit 2" to 2½"

#2 "AQUATEX" to fit 2½" to 3½"

#3 "AQUATEX" to fit 3½" to 4"

Information on "AQUATEX" may be obtained from GODFREY ROLLER COMPANY, PHILADELPHIA, PENNA.

Names of official distributors will be given in next advertisement.

"GO-PRENE" The one perfect synthetic roller developed by lithographers for lithographers.

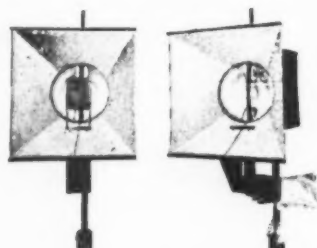
"GO-PRENE" Rollers are made from the finest of synthetic rubbers and are unaffected by heat and cold; will not absorb oils or varnish;

are made to withstand the long runs so damaging to some rollers; are easily washed with any roller wash; are not porous, so will not carry color from one job to another; will not swell or shrink.

GODFREY ROLLER CO.

211-15 NORTH CAMAC STREET
PHILADELPHIA, PENNA.

WILLIAM P. SQUIBB, President



NEW MACBETH ELECTIVE CLOSE-UP DIFFUSER

Use it or not, as you choose. The real answer to the question of diffusers.

If you want diffusers, push them up in place. If you want direct light, pull down with finger tips and diffusers disappear instantly.

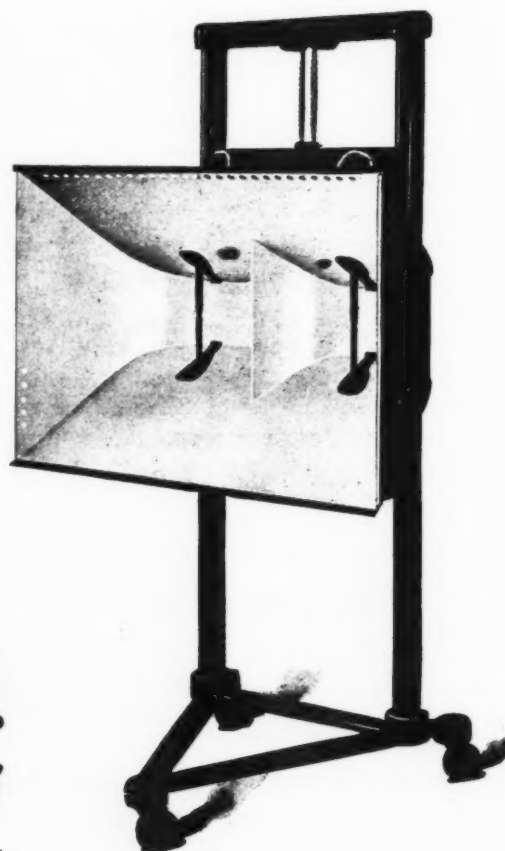
WORLD'S BEST PRINTING LAMP FOR LARGE FRAMES TYPE B-16

Specially designed reflector builds up light on edges and corners of frame. Result—you can load frame to capacity and still edges and corners of print will come up without over-printing center. Speed without fuzziness or halation.

Full twelve-inch trim. It is only necessary to trim each set of carbons once. Burn five hours without re-trimming.

Mounted on counterbalancing stand. Lamp readily moved up or down. Large ballbearing casters make it easy to move lamp in any direction.

There is a Macbeth lamp for every job in the Graphic Arts.



Macbeth

World's Standard Photo Lamps

MACBETH ARC LAMP CO. 875 N. 28th St., Philadelphia, Pa.

THE PHOTO-LITHOGRAPHER



Eagle is Flying High With Radical Innovation in Ink Specimen Books

EAGLE Printing Ink Company, affiliated with General Printing Ink Corporation, 100 Sixth Avenue, New York, is now distributing its new specimen book, which contains several altogether unique features that should be of valuable aid to printers.

Over 50 colors and their screen values are shown. In addition, each page shows a color properly attuned for harmony and one for contrast. In each page is also contained useful information concerning screen manipulation and the effects of overprinting.

The Eagle Company is encouraging printers to make up their own color specimen books by offering small swatches of each color shown in the Eagle book. Such a service is quite novel and should enable printers to present their own individual ideas as to color to their customers in a most effective way.

NOVEMBER 1937

READY TO ~~RUN~~ ADENA OFFSET DUAL CONTROL



TUB-SIZED

LIES FLAT

WILL NOT CURL

Adena Offset is always **READY TO RUN**, and can be put on the press right from the case or skid.

* * *

The reason it is ready to run . . . the reason you avoid delays, lost time, experiments . . . is because the moisture content is controlled automatically while Adena is being made on the paper machine.

* * *

ADENA is further controlled by means of a perfectly air-conditioned finishing room.



Save Money by Shipping via Miami Valley Shippers' Association.

Thus from the moment the production of Adena starts, all through the entire process of sheeting, careful sorting, trimming and final inspection and packing, **COMPLETE CONTROL** paves the way for your complete satisfaction—and your customer's, as well.



Makers of Quality Offset, Lithograph and Book Papers

CHILICOTHE PAPER COMPANY

Executive Offices and Mills: CHILICOTHE, O.

Eastern Office:
New York, N. Y.
41 Park Row

SALES OFFICES

Pacific Coast Office:
Los Angeles, Calif.
1003 N. Main St.

CHILICOTHE—a buy-word for high grade papers

It Is Rumored

that this company contemplates a change in management. There is absolutely no truth in this rumor. Furthermore, we have no intention of sacrificing our independence as an individual manufacturer of printing and offset presses and intend to continue under the personal supervision of the present owner-management.

WEBENDORFER-WILLS CO., Inc.

Builders of Printing Machinery for Over Thirty Years

MOUNT VERNON

NEW YORK, U. S. A.



LITHOGRAPHIC MACHINERY
CHEMICALS AND SUPPLIES
PLATE GRAINING
LINE & HALFTONE NEGATIVES
LINE & HALFTONE PLATES
PRESSWORK

*A*NNOUNCING a complete service for photo-lithographers and offset printers, to fill the demand for greater efficiency and profit in the trade.

The company is under the personal supervision of Mr. Raymond W. Dailey, an authority on photo-lithographic plant equipment; Mr. Benjamin Donzis, who has been an executive of one of the larger lithographic plants; backed by a competent staff, capable of producing the highest quality negatives, plates and presswork.

The firm will handle a complete line of lithographers supplies and equipment.

To meet the demand for higher quality plates we have installed the most up-to-date graining equipment, including one of the largest Zenith Grainers on the market.

We also maintain a pressroom for the convenience of our customers, to handle jobs which are too large for their own equipment, and to handle that rush job in case of an emergency.

In addition, we urge our customers to take advantage of our experience and knowledge in solving the many problems arising on camera, plate and press.

Graphic Equipment & Manufacturing Co. — PHILADELPHIA, PA.

Chemicals, Machinery and Supplies for the Graphic Arts

Young Lithographic Executives Organize

The Young Lithographic Executives' Association, at a dinner meeting held on September 30th at the Advertising Club of New York, adopted its Constitution and appointed temporary officers. George Schlagel, Jr., of the Schlagel Lithographing Corp. is Acting Treasurer and John L. Kronenberg of the American Lithographic Division of the U. S. Printing and Lithograph Co. was named Acting Secretary. Another dinner meeting of the Association will be held in the near future at the Ad Club.

Membership to this recently formed organization is restricted to young men engaged in any executive phase of the lithographic or allied businesses.

Poster Film Ready for Showing

The film, "The Making of a 24-sheet Poster," produced by the McCandlish Lithograph Corporation, is now ready for showing before advertising clubs, advertising classes and other interested groups, announced Mr. A. R. McCandlish, president of the McCandlish Lithograph Corporation of Philadelphia, recently.

This 16 mm. film depicts the lithographic production of a 24-sheet poster from the time of the inception of the design idea in the mind of the artist through all processes of production to the actual posting on the poster panels. At each showing of the film, a portion of the A. R. McCandlish gallery of European posters is also displayed. This showing of European posters contains the world's most complete collection of Ludwig Hohlwein designs. These Hohlwein designs were secured by Mr. McCandlish this summer while on an extended tour of inspection of European lithographic plants. The film and the European poster collection are supplied to all interested groups at no charge, and have been enthusiastically received wherever they have been shown.

Value vs. Price

Don't try to buy a thing too cheap
From those with things to sell,
Because the goods you'll have to keep,
And time will always tell.
The price you paid, you'll soon forget,
The goods you get will stay;
The price you will not long regret—
The quality, you may.
They ought to cut this "price" word out
Of dictionaries red,
Make value what men talk about,
Not just the price instead.
In food, or metal, cloth or wood.
Remember this advice:
Don't let the price control the goods,
But goods control the price.

—Anonymous.



- dense opaque solids
- clean highlights
- all the details of the original copy.

These qualities will distinguish your work when you use

ECLIPSE
DEEP-SET
BLACK
on deep-etch plates

Eclipse is made especially for use with deep-etch plates. The combination is perfect when your copy calls for contrast, sharpness, and brilliancy.

In addition to Eclipse, we have inks, both black and colors, to meet all of your requirements.

**GAETJENS, BERGER
& WIRTH, INC.**

Gair Bldg., 35 York St., Brooklyn, N. Y.
538 South Clark Street, Chicago, Ill.

VALLEY OFFSET

☐ Takes offset printing beautifully, being especially adapted for long runs.

☐ Sorg made the first offset sheet — and still makes the best. Valley Offset is a famous Sorg offset — noted for finish, strength and folding qualities.

**WILL NOT
PICK
FUZZ
LINT**

The **SORG PAPER CO.**
MIDDLETOWN, O.

NEW YORK
1111 CHANIN BLDG., 122 E. 42nd ST.

CHICAGO
DAILY NEWS BLDG., 400 W. MADISON

Samples Gladly
Sent on Request —
Write us.

Incorporated 1916

THE PIONEER PLATE GRAINERS IN AMERICA

Reliability Backed by a Desire to Please

IMPORTANT ANNOUNCEMENT

TO MULTILITH OWNERS

We are pleased to announce to the trade that a new Department has been added to our already large graining plant to take care of your requirements in the Regraining of your MULTILITH PLATES.

===== ALL OUR PLATES ARE MARBLE GRAINED =====
WHEN WE SAY MARBLE GRAINED WE MEAN JUST THAT

They may cost a little more BUT what a DIFFERENCE. A trial order will convince you of their merits.

Address your inquiries to

MULTILITH DEPT, 45 ROSE ST., NEW YORK CITY

IF PLATE RELIABILITY IS WHAT YOU ARE LOOKING FOR — THAT'S US.

PHONES
BEekman
3-4531-4542

Reliable Lithographic Plate Co., Inc.

17-27 Vanderwater St. & 45 Rose St., New York City

TAKE A CUE FROM COPIFYER



*"They asked me how I did it
So I gave them the Gospel text,
Just keep your light a-shinin'
A little ahead of the next."*

—Kipling

COPIFYER Lithograph Corporation, of Cleveland, Ohio, should approve the thought in that bit of verse. They have consistently kept their product in front of prospects and they have found that it pays.

The above illustration shows the Copifyer exhibit at the D. M. A. A. Convention, held in Cleveland in October.

Even among the many other exhibits, representing the "cream of the crop" nation-wide, the Copifyer display was outstanding because of the beautiful and very colorful specimens, arranged to have the utmost attention value.

Other photo-lithographers could benefit themselves and the industry as a whole by taking a cue from Copifyer in the matter of live sales promotion.

NOVEMBER 1937

4

**CENTRALLY LOCATED
DISTRIBUTING POINTS
NEW YORK
CLEVELAND
CHICAGO
CAMBRIDGE
(MASS.)**

•
COMPLETE STOCKS OF

HUNT'S

**PHOTOGRAPHIC
AND
PLATE MAKING
CHEMICALS**

•
**SEE OUR LISTINGS IN THE
WHERE-TO-BUY-IT SECTION OF THIS ISSUE**

PHILIP A. HUNT COMPANY

2432 LAKESIDE AVE.
CLEVELAND, OHIO

EST.
1890

1076 W. DIVISION ST.
CHICAGO, ILLINOIS

253-261 RUSSELL ST.
BROOKLYN, N. Y.

111 BINNEY STREET
CAMBRIDGE, MASS.

THESE INKS MAKE MONEY FOR YOU

Sinclair & Carroll inks pace the field. Their press-running properties and price per pound meet your requirements for full value. Men whose first consideration is the well being of this business personally supervise these inks in their formulation and manufacture. Of chief concern to us is that you obtain good results with their use. We welcome the opportunities you afford us to cooperate and be of constructive service.

SINCLAIR & CARROLL CO., Inc.

PRINTING

INKS

LITHO

591-3-5 ELEVENTH AVENUE - Tel. BRyant 9-3566

NEW YORK CITY

CHICAGO: 440 West Superior Street, Tel. Superior 3481

LOS ANGELES, CAL.: 417 E. Pico Street, Tel. Prospect 7296

NEW ORLEANS, LA.: 518 Natchez Street, Tel. Main 4491

SAN FRANCISCO, CAL.: 345 Battery Street, Tel. Garfield 5834

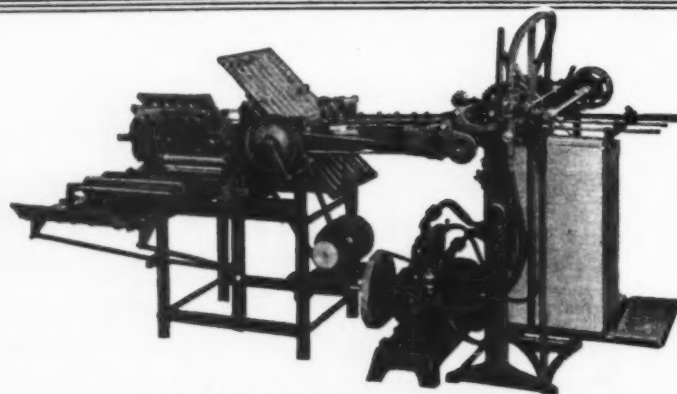
*Instruction • Survey • Plant Layout • Organization • Methods
Solution of Problems from Camera to the Press*

EXPERT SERVICE ON A PER DIEM OR ANNUAL BASIS

DR. L. R. MELOY

1776 BROADWAY

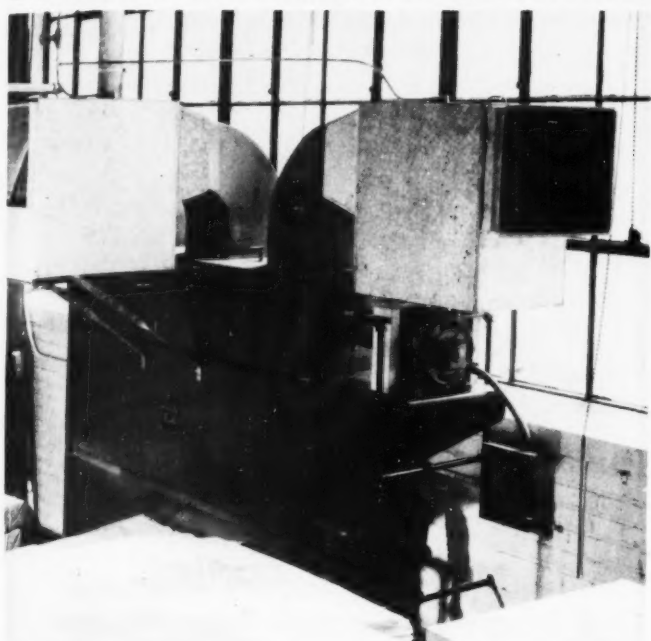
NEW YORK, N. Y.



Priced Low . . . 30 Months to Pay

THE SENSATION OF 1937
The New
BAUM AUTOMATIC FOLDER
5 Folds in One Operation
15,000 Operations an Hour
Accuracy Unexcelled — 60 Styles of Folds
RUSSELL ERNEST BAUM
615 Chestnut St., Philadelphia, Pa.

AIR CONDITIONING A REQUISITE TO MOST EFFICIENT PRODUCTION



IN any photo-lithographic plant the right amount of humidity is necessary for most efficient production, not only to condition stock properly but for other important reasons that are non-existent in letterpress plants.

A highly effective, economical, and practical device for maintaining the correct amount of humidity in spaces warmed by unit heaters, called Humidity Box, is being used successfully in a number of plants.

This device, manufactured by The Air Conditioning Supply Co., 1893 East 55th St., Cleveland, Ohio, will evaporate from one to two gallons per hour, with a total of less than four gallons per hour sprayed.

The illustration shows installation of two Humidity Boxes in a Cleveland envelope plant.

When the Lava Comes Down

From "NET RESULTS" house organ of Hopf, Kent, Willard & Company

The inefficient business is finding it harder and harder to exist. Inexorable progress is compelling organizations to become efficient or driving them out of the ranks.

As someone has said, inefficient or unneeded businesses are like the natives on the side of a volcano when the molten lava stream comes slowly down. They pray for the right to live, but the stream comes on and puts an end to them. That's what happens to any business that tries to stand in the way of progress.

Today every business man needs all the help he can find to enable him to adjust himself and his organization to rapid changes. Heavy-footed and heavy-minded people are covered by the lava of progress.

NOVEMBER 1937

Have You Tried...

CRYSTAL OFFSET

- A beautiful, opaque grade, clean, smooth and flat. Surface sized and with just the right moisture content to prevent wrinkles and stretch. White and india in all sizes and weights. Also fancy finishes.

Large stocks on hand for immediate delivery; special orders made quickly. Samples and dummies cheerfully supplied.

LEARN TO TRY US FIRST

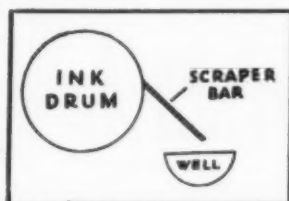
ROYAL PAPER CORP.

formerly ROYAL CARD & PAPER CO.

ELEVENTH AVENUE AND 25th STREET
NEW YORK



Our Envelope Manufacturing Department will supply quickly and economically any style of envelope from any stock to go with mailing pieces. Samples and prices cheerfully submitted.



As EFFICIENT
As it is
SIMPLE!

THE BALDWIN PRESS WASHER for Offset Presses

Hundreds of plants have been effecting economies with this device for years. The majority of them have reordered time and again.

Save up to 65% of wash-up time. Soon pays for itself!

Readily attached. Cannot mar rollers or parts.
Permits speedy wash-up without removing rollers.

FREE TRIAL arranged. Write, mentioning make and model of your press!

WILLIAM GEGENHEIMER, Inc.
OFFSET PRESS ENGINEERING 78 ROEBLING STREET
BROOKLYN, N. Y.

Speaking of Quality in Literature . . .

The magnificent quality of work turned out by leading lithographers is due to no monopoly of technique, no corner of the market on talent.

Indeed more often than not the intangible something that sets the quality job above the ordinary job is due to the grain on the plate.

We know by long years of experience how to properly grain and regrain your zinc, aluminum and glass. We guarantee every plate which leaves our plant.

All sizes in stock for immediate delivery.

We specialize in regaining multilith plates.

WESTERN LITHO PLATE & SUPPLY CO.
1019 SOULARD STREET ST. LOUIS, MISSOURI
ILLINOIS LITHO PLATE GRAINING CO.
913-921 WEST VAN BUREN ST. CHICAGO, ILLINOIS



A Tribute to **MAJOR C. B. GUTHRIE**

AS a tribute to Major C. B. Guthrie, "the granddaddy of them all," who died October 16, the Convention of the N.A.P.L. stood silent for three minutes during its session held on the day of the Major's death.

Major Guthrie was one of the founders of the N.A.P.L. He will be long remembered not only as one of the Association's staunchest supporters but also as a gentleman of unusual ability and geniality.

Members of the Association and many other friends miss the Major and deeply regret his passing.

Something New—Correspondence Course in Vari-Typography

ABOUT the first of the year a correspondence course will be started by the Ralph C. Coxhead Corporation, New York, covering three phases of Vari-Typer operation which will qualify students as operators, composers, and Vari-Typographers.

The course, available without charge to any operator or owner of a Vari-Typer, Hammond, or Coxhead writing machine, will take the place of lengthy letters of instruction now sent out to new owners or operators.

A Certificate of Competency will be awarded upon completion of each of the three parts of the course.

The operator's course will require about 20 hours each for study and practice; the composer's course about 30 hours; and the Vari-Typographer's course about 100 hours.

Applications for the course are now being received by the Coxhead Corporation.

THE PHOTO-LITHOGRAPHER

McCandlish Announces 1938 Contest

Mr. A. R. McCandlish, President of McCandlish Lithograph Corporation, Philadelphia, has announced plans for the McCandlish Awards for 1938. The 1938 prizes will be given for the best 24-sheet poster designs submitted by American artists advertising any product or service which was advertised on the 24-sheet poster panels during 1937. Of course, each sketch entered in the contest must be a new design and not one previously used in 24-sheet poster advertising. The Awards are as follows: \$1,000.00 First Prize, \$250.00 Second Prize and \$100.00 Third Prize. Contest entries must be in the hands of the McCandlish Lithograph Corporation, Roberts Avenue and Stokley Street, Philadelphia, not later than five o'clock, February 22, 1938.

Lanston Issues New Folder Describing Photo-Imposing System

A comprehensive illustrated description of the Monotype-Huebner Photo-Imposing System is contained in a new folder just issued by Lanston Monotype Machine Company, Philadelphia.

The system since it was first offered for sale two years ago has met ready acceptance and is now represented by more than 150 installations.

It represents a practical method by means of which line color register can be obtained and step-and-repeat work can be done without the use of photo-composing machine.

The system consists of three units—a layout and register table, a register chase, and an all-metal registering vacuum frame. These three units make possible the operation of a single system for the production of offset press plates for either single-color or multi-color work.

Readers can obtain copies of the new folder by writing to Lanston Monotype Machine Company, 24th at Locust Street, Philadelphia.

WARNING

The Southworth Machine Co. of Portland, Maine, is the only concern licensed to manufacture and sell the patented Simplex Paper Conditioner Machine. The purchase and use of machine known and advertised as the Box-type Paper Conditioner is a direct infringement on U. S. letters patent No. 1,657,073. Any infringement of patent rights whether it be by the manufacturer or user of infringing apparatus will be restrained by court action.

E. F. Dreger, Patentee
231 First Street
San Francisco, Calif.

ZEISS



Optical Instruments For Process Work

Lenses, Stops, Prisms, Mirrors, Magnifiers, Color Filters, Revolving Collars, Focusing Microscopes

Write for Information

CARL ZEISS, INC., 485 FIFTH AVE., NEW YORK
728 So. Hill Street, Los Angeles

For BETTER
Reproduction

LEVY CAMERAS

Standard and Dark Room Types
Made of Wood or Metal

HALF TONE SCREENS

VACUUM
PRINTING FRAMES

LENSES - LAMPS

Manufactured by
REPRO-ART MACHINERY CO.
WAYNE AVENUE & BERKELEY STREET
PHILADELPHIA, PENNSYLVANIA

Columbia Offset & Reproduction Corp.

- Artists to the trade
- Negatives, Positives and Process Work for Machine or Hand Transfer
- Originals on Stone & Plate

WE OPERATE NO PRESSES

NO CONNECTION WITH ANY
LITHOGRAPHIC PLANT

2 DUANE STREET, NEW YORK, N. Y.

Telephone: BEekman 3-2436

DRISCOLL'S Offset Inks

- Assure Foremost Pressroom Economy
- Highest Possible Color Values
- Unfailing and Dependable Working Qualities

They also give you the satisfaction of knowing that when you buy them you are dealing with a house deeply interested in working out your every GRAPHIC INK PROBLEM.

USE DRISCOLL'S OFFSET BLACK (0237)
IT IS NOTED FOR FINEST RESULTS

Write for Free Samples and Prices

MARTIN DRISCOLL & CO.

610 FEDERAL STREET
CHICAGO

BRANCH PLANT IN MILWAUKEE, WISC.

Looking Ahead with the Lithographic Industry

(Continued from page 23)

The present ascendancy of offset lithography as a printing method was not achieved without tedious, painstaking engineering development, without research, without the courage of management and sales, without the idealism that in every organization must function if the aims and purposes of the organization are ever to be realized.

A few months ago, *THE PHOTO-LITHOGRAPHER* featured an article about Mr. A. F. Harris. I am sure that all of you read it. It was titled "The Grand Old Man of the Lithographic Industry" and was written by my friend, Walter Soderstrom. It faithfully portrays the idealism that motivated offset pioneering and has continued to inspire development.

Under the leadership of A. S. (Stull) Harris, vice-president in charge of engineering, a chemical research department was set up considerably more than a year ago, in charge of experts. The chemical division has centered attention on plate-making processes. At times, some of us have been inclined to refer to them as "revolutionary" but, as mentioned before, they are not revolutionary, they are simply definite indications of progress. I am positive that they are going to prove of the greatest benefit and value to you of the lithographic industry.

Our findings in the chemical division cannot as yet be announced in detail, but it is our objective and plan to make them available to the trade in the comparatively near future.

I am not going to attempt to talk about Harris presses at all, with the exception of this one statement—If Harris presses do not keep abreast of the industry, if we as a company do not continue to look ahead into the future, we will not continue to merit your consideration which has been so generously given in the past.

This is a condition which I can hardly imagine will ever exist, because with the many, many years of pioneering effort, with the knowledge that has been built up and accumulated over the years, it is reasonable to suppose that, as pioneers in the offset press development of the country, we will continue to occupy this enviable position.

There are members of your association who have small single-color units of our manufacture, others have large single and multi-color presses. This in itself speaks volumes for the progress of the photo-lithographers in an industry which only a few years ago was struggling for recognition and a place in the sun.

A little while ago I mentioned that the future of lithography depends considerably upon vision. It also depends upon definite planning and following through on any far-sightedness or on any scientific analysis of what the industry as a whole needs.

THE PHOTO-LITHOGRAPHER

I do not believe it is out of reason to suggest some things which I believe we will live to see in connection with the future of lithography.

I think it is perfectly feasible to state emphatically that much of the publication work that is done today by other methods can reasonably be expected to go to offset-lithographic production. I mean by this, magazines, tabloid newspapers and books.

This definitely is an age where illustration is attracting tremendous attention. The very fact that offset lends itself so splendidly to the reproduction of photographs is, in my opinion, one of the reasons why numerous high school and college annuals have been diverted from the letterpress method to lithography.

This line of reasoning can be carried further and as plate-making processes are improved and the trade is given a plate that will last for a large number of impressions with every degree of certainty, there is no reason why lithography should not enter some of the fields which it has barely touched up to the present time.

You who are the technicians in the production end of the business know better than I do just when this increased volume will be possible and practical.

It is my hope that it will be my privilege to meet you in your various plants from time to time. I hope too that whenever we do meet all of us will be looking ahead with the same confidence and courage to face the facts of lithographic development that is evident here tonight.

This afternoon it was our pleasure to show many of you, in a trip through our factory, the building of the Harris offset press. We were exceedingly glad to have you as our guests. Tonight it is a great privilege for me to be with you.

You saw today press developments, many of which are new, and it is my firm conviction that each year will bring new advances and new betterment in every phase of the lithographic industry.

The progress which has already been made in the allied industries which I touched upon before, such as paper, inks, rollers and plate-making processes, will continue along with press building, because all of us look forward to the future with the utmost confidence.

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Levess, Herbert H., C. P. A., 360 W. 23rd St., New York, N. Y.
Reinish, Samuel S., C. P. A., 2 Lafayette St., New York, N. Y.

ACIDS

California Ink Co., Inc., 545 Sansome St., San Francisco, Calif.
Mallinkrodt Chemical Works, 3600 N. 2nd St., St. Louis, Mo.
National Offset Supply Co., St. Louis, Mo.
Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

ADDRESSING AND MAILING SERVICES

Ardlee Service, Inc., 28 W. 23 St., New York, N. Y.
Gray, James Letter Shop, 215 E. 45th St., New York, N. Y.

AIR CONDITIONING EQUIPMENT

Offen, B. & Co., 608 S. Dearborn St., Chicago, Ill.

ALUMINUM PLATES

(See Plates)

ALBUMEN

California Ink Co., Inc., 545 Sansome St., San Francisco, Calif.
Holland, Thor, 7048 Jones Ave., N. W., Seattle, Wash.
Hunt, Philip A., Company, 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, Ohio—1076 W. Division St., Chicago, Ill.
Mallinkrodt Chemical Works, 3600 N. 2nd St., St. Louis, Mo.
National Offset Supply Co., St. Louis, Mo.
Norman Willets Co., 318 W. Washington St., Chicago, Ill.
Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.
Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

ALIGNING PAPER

(See Vogeltypes Paper)

AMMONIUM DICHROMATE

Mallinkrodt Chemical Works, 3600 N. 2nd St., St. Louis, Mo.

ARC LAMPS

(See Lamps—Arc)

ASPHALTUM

Hilo Varnish Corporation, 42-60 Stewart Ave., Brooklyn, N. Y.
International Printing Ink Corporation, 75 Varick St., New York, N. Y.
National Offset Supply Co., St. Louis, Mo.
Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.
Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

ARTISTS

Hugo L. Sachs, 7 West 20th St., New York, N. Y.

ARTISTS' SQUARES

Zoltan, John M., 833 Lyman Ave., Oak Park, Ill.

ARTISTS' SUPPLIES

Peerless Blue Print Co., The, 347 Fifth Ave., New York, N. Y.

BELLOWS

United Camera Co., Inc., 1515 Belmont Ave., Chicago, Ill.

BENDAY AND SHADING MEDIUMS

(See Shading Mediums)

BINDINGS

Plastic—Brewer—Cantelmo Co., Inc., 118 E. 27th St., New York, N. Y.
Spiral—Spiral Binding Company, 148 Lafayette St., New York, N. Y.
Wire-O—Trussel Mfg. Co., Poughkeepsie, N. Y.
(See list of licensees in display advertisement)

BLANKETS

Bainbridge, Philip M. (Goodrich Rubber Blankets), 95 Madison Avenue, New York, N. Y.
California Ink Co., Inc., 545 Sansome St., San Francisco, Calif.
Ideal Roller & Mfg. Co., 2512 W. 24th St., Chicago, Ill.
International Printing Ink Corporation, 75 Varick St., New York, N. Y.
National Offset Supply Co., St. Louis, Mo.
Rapid Roller Co., Federal at 26th, Chicago, Ill.
Reed Roller & Supply Co., Inc., 415-417 Jackson St., San Francisco, Cal.
Roberts & Porter, Inc., 100 Lafayette St., New York, N. Y., and 402 S. Market St., Chicago, Ill.

The Superintendent

(Continued from page 39)

long enough period of time to assure the observing of the new rule as a habitual occurrence. He must also realize that because of greater mental effort, new habits take time to form.

Habit dictates the proper performance of regular work. Yet attention called to an interesting subject will cause habit to cease functioning and mistakes to occur. The good executive will, therefore, give instructions for the coming job only when the old one has been finished. And while we're on habit, there is the very good habit forming slogan that should be carried around whether we are executives or mechanics, and whether we are thinking of machinery or men; PREPARE, MAINTAIN and CHECK are three mighty important thoughts that require eternal vigilance and inspection.

These, above, are the tools of human relations.

MECHANICAL REQUIREMENTS


A controversial issue is injected into the writing by the reference to the mechanical knowledge of the superintendent. Just how detailed must be his practical experience in the industry? Some contend he must be a master of all trades, an expert. (Who was it said an expert is one who makes snap judgements and is sometimes right?) Others believe that a superintendent should have a practical working knowledge of any one branch, either press, art, photography or plate making. It goes without saying that in this age of specialization, there is no master of all branches of this industry. We are all specialists.

The solution undoubtedly lies in having a practical man at the top with a diversity of experience in some of the branches and a good working knowledge of the remainder. Men in charge of each department under this superintendent must be practical men in their field so that instruction may be given in the methods used in their particular department. Production really depends upon the skill of the tradesman, but the man at the top must inspire confidence, coordinate the factors and possess the ability and practical knowledge to rectify errors of commission and omission. Foremen, however, are the real trouble shooters of the industry, being cast primarily as remedy men.

In this writing we have given the superintendent some tools to use in his handling of men. These tools from the tool box of human relations we called the most important of his requirements. Then we listed the mechanical branch of his requirements, second in importance. We showed where there was an overlapping of some of the factors. The third and last of the series will develop more fully the mechanical phase and the administrative service.

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BRONZERS

Henschel Mfg. Co., Milwaukee, Wis.

CAMERAS

Agfa-Ansco Corp., Binghamton, N. Y.
California Ink Co., Inc., The, 545 Sansome St., San Francisco, Cal.
Eastman Kodak Co., 343 State St., Rochester, N. Y.
Lanston Monotype Machine Co., 24th at Locust, Philadelphia, Pa.
Levy, Max & Co., Wayne & Berkley, Philadelphia, Pa.
Litho Equipment & Supply Co., 215 W. Ohio St., Chicago, Ill.
Miles Machinery Co., 18 East 16th St., New York, N. Y.
Norman-Willets Co., 318 W. Washington St., Chicago, Ill.
Ostrander-Seymour Co., The, 1870 S. 54th Ave., Cicero Station, Chicago, Ill.
Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.
Repro-Art Machinery Co., Wayne Ave. & Berkley St., Philadelphia, Pa.
Robertson, R. R., 1 N. Canal St., Chicago, Ill.
Sullebarger Co., E. T., 116 Nassau St., New York, N. Y., and 538 S. Clark St., Chicago, Ill.
Wesel Mfg. Co., 468 Fourth Ave., New York, N. Y., and Scranton, Pa.
Zeiss, Carl, Inc., 485 Fifth Ave., New York, N. Y.

CARDBOARDS AND BRISTOLS

Wheelwright Papers, Inc., 230 Park Ave., New York, N. Y.

CARBON (ARC LAMP)

Pease Co., C. F., The, 809 N. Franklin St., Chicago, Ill.

CARBON PAPER RIBBONS

Remington Rand, Buffalo, N. Y.

CARBONS—Photographic

Hunt, Philip A., Company, 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, Ohio—1076 W. Division St., Chicago, Ill.
Norman Willets Co., 318 W. Washington St., Chicago, Ill.

CHEMICALS

Agfa-Ansco Corp., Binghamton, N. Y.
California Ink Co., Inc., The, 545 Sansome St., San Francisco, Calif.
Eastman Kodak Company, Rochester, N. Y.

Hunt, Philip A., Company, 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, Ohio—1076 W. Division St., Chicago, Ill.

La Motte Chemicals Products Co., 438 Light St., Baltimore, Md.

Mallinkrodt Chemical Works, 3600 N. Second St., St. Louis, Mo.

Merck & Co., Inc., Rahway, N. J.

National Offset Supply Co., St. Louis, Mo.

Norman-Willets Co., 318 W. Washington St., Chicago, Ill.

Phillips & Jacobs, 622 Race St., Philadelphia, Pa.

Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

Siebold, Inc., J. H. & G. B., 47 Watts St., New York, N. Y.

COLOR CONTROL AND MEASURING EQUIPMENT

Huebner Laboratories, 202 E. 44th St., New York, N. Y.

COMPOSITION

Monsen, Thormod and Son, Inc., 740 N. Franklin St., Chicago, Ill.

COMPOSING MACHINES

Coxhead Corp., Ralph C., 17 Park Place, New York, N. Y.

CRAYONS-LITHO

Korn, Inc., Wm., 120 Center St., New York, N. Y.
Roberts & Porter, Inc., 100 Lafayette St., New York, N. Y., and 402 S. Market St., Chicago, Ill.
Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

DAMPENING DEVICES

Goodrich, The B. F. Co., 570 S. Main St., Akron, Ohio.

International Press Cleaner & Mfg. Co., The, 112 E. Hamilton Ave., Cleveland, Ohio.

Wagner, Charles, Litho Machine Co., 51 Park Ave., Hoboken, N. J.

DEEP ETCH SUPPLIES

Pitman, Harold M., Co., 150 Bay St., Jersey City, N. J., and 51st Ave. and 33rd St., Chicago, Ill.

Robertson, R. R., 400 W. Madison St., Chicago, Ill.

Schultz, H. J., 2230 N. Racine Ave., Chicago, Ill.

Senefelder Company, Inc., The, 32-34 Greene St., New York, N. Y.

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Hunt, Philip A., Company, 253 Russell St., Brooklyn, N. Y.—2432 Lakeside Ave., Cleveland, Ohio—1076 W. Division St., Chicago, Ill.

DIE CUTTING MACHINE—Semi-Automatic

Krause U. S. Corp., Karl, 55 Vandam Street, New York, N. Y.

Printing as an Educational Force

(Continued from page 46)

Perhaps it is not too much to expect that the importance of printing in cultural history will eventually be realized by educators. Let us hope, at least, that the day is not far distant when those most vitally concerned with the education of youth will realize that the printed word has probably done more to enhance social values and to encourage educational, artistic, and economic progress than have all the war-like escapades of famed personages usually treated in the average history text-book.

In giving thought to the educational aspects of any major industry, the importance of knowledge of the product of that industry to the consumer cannot be overlooked. The purchaser of an automobile today expects both intrinsic value and beauty in the product that he buys. He has literally been educated by manufacturers to expect certain qualities in an automobile and to know when he is getting them. Among other industrial commodities, consumer appreciation of values is not so evident, but it should be. So important has become the question of consumer knowledge that many schools are emphasizing this important phase of education in connection with their industrial arts and home economics course. This should be particularly true in printing, because practically everyone in the United States today is a consumer of printed products. While many manufacturers are doing much to develop wider appreciation of values, they cannot do the whole job of educating the consumer. To teach the consumer of printing to better understand and evaluate the product of the industry is a task which is already receiving serious attention in many junior high schools, and will eventually become a standardized part of higher learning.

By way of summary, let us hope for the following things as an added phase of modern education: A true picture of the printing industry as it relates to the general welfare and as it affects the problems of labor and employment.

A better understanding of the efforts of the printing industry to increase knowledge and heighten the plane of thinking.

The establishment of means for improving the graphic arts through a curriculum in schools and colleges.

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Hilo Varnish Corporation, 42-60 Stewart Ave.,
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Sinclair & Valentine Co., 11 St. Clair Pl. New York,
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Agfa Ansco Corp., Binghamton, N. Y.
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Gevaert Co. of America, Inc., The, 423 W. 55th St.,
New York, N. Y.
Haloid Co., The, 6 Haloid St., Rochester, N. Y.
Hammer Dry Plate & Film Co., Ohio Ave. & Miami
St., St. Louis, Mo.
Norman-Willets Co., 318 W. Washington St.,
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Polygraphic Co. of America, 310 E. 45th St., New
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Fuchs & Lang Mfg. Co., Div. General Printing Ink
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Gevaert Co. of America, Inc., The, 423 W. 55th St.,
New York, N. Y.
International Printing Ink Corporation, 75 Varick
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National Offset Supply Co., St. Louis, Mo.
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Pitman, Harold M., Co., 150 Bay St., Jersey City,
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St., New York, N. Y.
Lithographic Plate Graining Co., 41 Box St., Brook-
lyn, N. Y.
Maddox Lithoplate Graining Corp., 503 S. Jefferson
St., Chicago, Ill.
McKenna, James J., 1015 Callowhill St., Phila., Pa.
National Offset Supply Co., 613 N. Broadway,
St. Louis, Mo.
Photo Litho Plate Graining Co., Inc., 1207 S. High-
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Reliable Lithographic Plate Co., Inc., 17 Vande-
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Western Litho Plate & Supply Co., 1019 Souldard
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Hoe, R., & Co., Inc., 910 E. 138th St., at East River,
New York, N. Y.
McKinley Litho Supply Co., 1600 John St., Cin-
cinnati, O.
Zarkin Machine Co., 335 E. 27th St., New York,
N. Y.

GRAINING QUARTZ FLINT

New England Quartz Co. of New York, 450 Seventh
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Hunt, Philip A., Company, 253 Russell St., Brook-
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Report of President Heideke

(Continued from page 33)

The value of this book to the industry cannot be measured in dollars. It deserves your support; buy one for every employee; it's a good investment.

In all sincerity I wish my vocabulary were such that I could do justice with words to praise the worthy efforts and accomplishments of our executive secretary, Walter Soderstrom. His ability is well known to you; but I wonder whether his untiring efforts and devotion to his job and our cause is well enough known to be fully appreciated. Nothing that we might do or say would serve to compensate him for the services he has rendered our organization. From my heart, dear Walter, I am grateful, and I know that I am voicing the thoughts and feelings of all who know the willingness and capability with which you have served us.

Team work is the very essence of successful management; and with the loyal support of our national counsel, Captain Montfort, it has been an easy task to manage the affairs of your association. Capt. Montfort's services have been invaluable to us, and I deeply regret that they have not been equally remunerative to him. Captain, through your loyalty you have endeared yourself to us in such a manner that we will never forget you. I am proud in the thought that you are my friend.

I am grateful for the cooperation of the board of directors and officers who have served with me, and I extend appreciation to all who have given us a helping hand.

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Chicago, Ill.
Bowers Printing Ink Co., 711 W. Lake St., Chicago,
Ill.
Braden-Sutphin Ink Co., 1736 E. 22nd St., Cleve-
land, Ohio
California Ink Co., 545 Sansome St., San Francisco,
Calif.
Ceb Printing Ink Co., Chicago, Ill.
Crescent Ink & Color Co. of Penn., 464 N. 5th St.,
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Driscoll, Martin & Co., 610 Federal St., Chicago, Ill.
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Huber, Inc., J. M., 460 W. 34th St., New York, N. Y.
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York, N. Y.

Mayer Co., Inc., Robert, 1107 Grand St., Hoboken,
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Abstracts of important current articles, patents, and books, compiled by the Research Department of the Lithographic Technical Foundation, Inc. These abstracts represent statements made by the authors of articles abstracted, and do not express the opinions of the abstractors or of the Research Department. Mimeographed lists have been prepared of 1) Periodicals Abstracted by the Department of Lithographic Research, and 2) Books of Interest to Lithographers. Either list may be obtained for six cents, or both for ten cents (in stamps). Address the Department of Lithographic Research, University of Cincinnati, Cincinnati, Ohio.

Photography and Color Correction

Exposure Controls. F. H. Smith. *Process Engravers' Monthly*, 44, No. 524, Aug. 1937, pp. 257-8. The value of an instrument for accurately controlling exposure, particularly in color work, is self-evident. The "Illumeter" and the "Lumitron" are examples of such devices. The latter is described with explanation of its principles and discussion of its advantages and disadvantages.

A Tested Reproduction Method for Single-Color Offset Work. T. Kurth. *Reproduktion*, 7: 152-53, September 1936. (In German). A flashed and developed dry plate is sensitized with bichromate, and a positive half-tone print is produced on it, either from a screen negative or a contact screen and a continuous-tone negative. The positive is "developed" with Farmer's reducer, the reducing action being controlled to give the desired gradation in the positive. Several modifications are suggested. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 23, p. 376 (1937)).

The Measurement of Opacity in Reproduction Work. K. Stötzer. *Reproduktion*, 8: 62-5, April 1937. (In German.) Photometric terms are explained. The Hunter-Penrose comparator, the Martens-Bechstein polarization photometer, and their methods of use are discussed. The Zeiss comparison photometer designed by Pulfrich is a valuable instrument with which high opacities can be measured. Practical instruments must be capable of measuring higher opacities, of the smallest possible areas, at any point on a 40 by 50-cm. or 50 by 60-cm. subject. The Kipp and Zonen microphotometers and densitometers, using thermo-elements, measure heat instead of light, and comparable results depend upon approximation of the objects measured to neutral gray. Less sensitive, but fairly constant and very convenient, are photocells.



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OFFSET PLATE MAKING SERVICE

(See Plate Making Service)

Various methods of determining opacity with photocells are described. Easier and more uniform results can be obtained by the process photographer using measuring instruments. Normally, photocells are unable to measure the low intensities on the ground glass of the camera. The sensitivity is increased enormously when combined with a multiflex galvanometer. Measurement of the opacity of half-tone screen images is much more difficult. In the Hunter-Penrose comparator, reference half-tone scales are compared with the half-tone to be measured. The match is for dot size, and is complicated by differences in dot contrast, shape, etc. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 23, p. 369 (1937).)

Overcoming Great Contrast in Tone Reproduction. W. Anderau. *Atelier*, 44: 81-4, May 1937. (In French.) Since the density range of the final print is relatively small (0 to 1.5), the product of the gammas of negative and positive for subjects of great contrast must be less than unity. This may be achieved by: 1) exposing the paper covered with developing solution so that the first-developed silver layer protects that underneath from darkening; 2) reducing negatives by bleaching, and re-developing with a slow-working developer (paraphenylenediamine), or by iron-toning; 3) overexposure of the positive followed by treatment with Farmer's reducer to clear the highlights; and 4) masking with a thin positive. Ideally, compression of tones should be in the middle portions rather than in the shadows or highlights, and eventually negative and positive materials will be available in which the slope of those portions of the characteristic curve are steeper than that in the middle portions. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 23, p. 360 (1937).)

Direct Color Photography with Both Ordinary and One-Shot Cameras. C. H. Miller. *Commercial Photography*, 12: 132-42, 171-84, January, February 1937. In the preparation of color photographs by the separation process, a gray scale should be incorporated in the picture to aid in matching the negatives. The exposure through the separation filters should be so adjusted that, for equal development, the gray scales on the resulting negatives match, step for step. The exposure through the blue-violet filter should then be cut about 20 per cent, and development increased sufficiently to bring the gray scale back to balance with the other two. This procedure gives improved yellows. Flat lighting should be used, and exposure gauged by intelligent use of a meter. As a safeguard against accidental movement of the camera between exposures, six negatives may be made in the order A, B, C, C, B, A. Color-separation negatives should be developed to a low contrast. A glycin developer of the following composition is suggested: water, 16 oz.; glycin, 4½ oz.; sodium sulfite, 7½ oz.; and potassium carbonate, 14½ oz. The resulting paste serves as the stock solution,

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and is diluted in the ratio of 1 to 20 for use. Negatives made through filters A and B should be developed for 4 minutes, those through C-5, for 4½ minutes in tank development at 70° F. The technique of the one-shot camera is discussed. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 23, p. 233 (1937).)

Symposium on the Commercial Applications of Color Photography. Willinck, Richards-Everett, Yevonde, E. Greenwood, D. A. Spencer, F. J. Tritton, et al. *Photographic Journal*, 77, May 1937, pp. 324-9. This composite article is the report of a discussion by the Color Group of the Royal Photographic Society on the relative advantages of the additive and the subtractive color processes, and of results obtainable in the reproduction of colored objects and pictures.

What is Kodachrome? S. H. Horgan. *Photo-Engravers Bulletin*, 27, No. 2, Sept. 1937, pp. 55-8. The history and advantages of Kodachrome films are given, but no details of manufacture or processing are included. The process used by the photo-engraver in reproducing the miniature Kodachrome positives in four colors is described briefly. It is important that camera vibration be eliminated, and that exact control of time and temperature be maintained during the development of the color record negatives made from the miniature positive.

Three, Four, or More, and Two Color Processes. M. Leeden. *Modern Lithographer and Offset Printer*, 35, No. 8, Aug. 1937, pp. 154-5. The advantages of using more than four printings in lithography lies in obtaining solid light images, producing a richness and strength not obtainable otherwise. An amazing amount of printing-in and drawing on plates for six-color work could be avoided by the use of proper technique. The common method is to make three or four color-separation negatives, and from these to prepare the additional plates by retouching, masking, and painting-in. A more satisfactory and economical procedure is to make a six-color selection of negatives in continuous tone, starting with three correctly exposed negatives and a fourth for black or grey. The remaining negatives are made by deliberate under-exposure and full development, so that the highlights and quarter-tones are rendered low down in the scale. The defects in such plates are easier to remedy than are those in plates prepared by the method outlined first.


More Color Questions. I. L. Gartland. *Printing*, 61, No. 7, July 1937, pp. 26-7, 29. This article comprises answers to questions on color processes. "Grey wedges," or gray scales, are important as controls in all color work. When these cannot be included in the composition, a white object in a corner, and the deepest shadows may serve as control areas. Occasionally, such control areas cannot possibly be included. The pellicle one-shot color camera is briefly explained. A photo-electric densitometer

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designed by the author for comparing separation negatives, is described and illustrated (patent pending). Reference is made to manufacturer's booklets on Chromatone and Tri-Pac processing.

Process for the Preparation of Four-Color Printing Media. Firma F. A. Brockhaus. *German Patent* No. 646, 441 (Aug. 5, 1937). Process for the production of four-color printing media in which screens chosen for the bright colors have larger interstices than have those for the darker colors, and for example the yellow and red have the same screen position, characterized in that the usual three-color screen angles are used, and for the yellow plate a screen is employed which shows in unit area half as many lines as in the screens used for the other three colors.

Planographic Printing Surfaces and Plate Preparation

New Methods of Making Printing Plates for Offset Printing. A. Köpf. *Klimschs Jahrbuch*, 30: 111-17, 1937. (In German.) The discrepancy between proofs and press sheets is discussed at length: 1) A new Hausleiter process, called "Efha-positive-glue printing" process, is not essentially new; a reversal varnish is supplied and different grades of glue are used. 2) In a projection printing process, also developed by Hausleiter, a lithographic plate is coated with a silver emulsion and exposed in an enlarging camera. The exposure, with indirect illumination by arc lamps through a screen positive, enlarging three times with stop 46, is about two minutes. A wash-off relief image is produced, which is reversed as in the Efha-positive-glue-process. 3) The "Astra-offset-deep" process uses bichromated gum, and etching, varnishing, and degumming solutions. 4) In another process, a smooth zinc or aluminum plate is plated with lead, then with a thin layer of copper. Photomechanical prints are etched through the copper layer. The denuded lead areas absorb water and reject ink, while the copper areas accept ink. Long life and sharp printing are expected from this process. The "Auto-recta-type" process, W. Schupp's method of compensating for unsatisfactory reproduction of densities by the use of auxiliary negatives, is also described. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 23, pp. 376-7 (1937).)

Printing-Surfaces. Bricefield, Ltd. and W. S. Field. *British Patent* No. 467,610 (Dec. 21, 1935). The grain of a metal, e.g. zinc, printing plate is formed by a phosphate coating, preferably applied by means of a solution of an acid phosphate which is capable of being hydrolysed, e.g., the dihydrogen phosphates of zinc or manganese. The plate, which may first be mechanically grained, is treated to remove oxide or other skin by means of a corrosive agent, wetting-out agent, and grease solvent, such as a mixture of phosphoric acid, butyl alcohol, and the sodium

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salt of sulphonated lauryl alcohol, is then etched with nitric acid and alum, and is finally immersed in a solution containing zinc dihydrogen phosphate, ferrous sulfate, and sodium carbonate.

Equipment and Materials

New Machine Minders Should Do This. "Inker." *Modern Lithographer and Offset Printer*, 33, No. 8, Aug. 1937, pp. 154-5. The treatment advisable for neglected or misused presses is described, including 1) overhauling and cleaning the machine, 2) cleaning plate, blanket, and impression cylinders, and setting grippers, 3) overhauling and setting dampers and leveling rollers, 4) repairing rollers, 5) overhauling the washing-up machine, and 6) marking bearings, if this has been neglected.

Rubber Roll. A. L. Freedlander. *U. S. Patent* No. 2,094,008 (Sept. 28, 1937). In a printing roller, the combination of a vulcanized rubber surface on an axle, a relatively soft rubber body enclosed at its ends by protecting collars vulcanized to said rubber coating on the axle, and a vulcanized sleeve mounted on said rubber body and its collars.

Marginal Aligner. T. Harper. *Printing Equipment Engineer*, 54, No. 4, July 1937, p. 28. The new Stanford-Toman marginal aligner is attached to the carriage of any standard typewriter, and may be used or not. Thus it does not interfere with the ordinary use of the machine. Copy is typed first on special paper having ruled margins permitting the use of 53 to 60 characters to the line. The material is then retyped, the device being re-set for each line to justify properly. Special carbon ribbon is used, and the margin may be varied from two inches to the width of the typewriter carriage.

Paper and Ink

Printing Processes. International Printing Ink Corp. *British Patent* No. 462,924. (July 25, 1933—Conv. date.) A method of rapidly setting a printing ink comprising a colloid or binder and a solvent, consists in applying to the printed matter a diluent for the ink solvent which is more volatile than the solvent and which causes precipitation of the colloid or binder, and then removing the greater part of the diluted solvent before evaporation of the diluent.

The Drying of Printers' Ink. W. B. Wheelwright. *Paper and Printing Digest*, June 1937, pp. 12-4. A discussion of the inter-relation of paper, ink, and relative humidity, with quotations from papers by J. Bekk, G. L. Larocque, and O. Kress.

Driers and Their Uses. F. Fritz. *Chemiker Zeitung*, 60, pp. 921-4 (Nov. 11, 1936). The author discusses driers, devoting considerable attention to the historical de-

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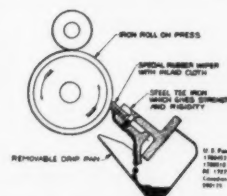
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velopment, classification, manufacture, mechanism of action, measurement of effect, methods of usage, and hazards involved in handling.

General

The Theoretical Basis of Multicolor Printing.

H. E. J. Neugebauer. *Zeitschrift für wissenschaftliche Photographie, Photophysik, und Photochemie*, 36: 72-89, No. 4, 1937. (In German.) Multicolor printing follows the laws of additive color mixture, for which the components are the pure printed-ink colors and their superimposed mixtures. The laws of probability govern the amounts of overlapping of two or more of the printed-ink colors. These laws were investigated by both theoretical and practical analyses. The conditions which must be satisfied by the printed-ink colors and the color separation filters in order to secure perfect color reproduction were derived, and the theoretically best printing colors and filters are given. Practical printed-ink colors were compared with these optimum colors. (*Monthly Abstract Bulletin of Eastman Kodak Company*, 23, p. 233 (1937).)

The Photo-Lithographer's Manual (Book). Compiled by W. E. Soderstrom. Published by Waltwin Publishing Company, 1776 Broadway, New York, New York, 1937. Price: \$4.00. 337 pages. This text is divided into three parts, dealing respectively with the selling of lithography, production methods, and the management of the lithographic plant. The technical section discusses preparation of copy, litho copy, photographic reproduction, dot-etching, albumin and deep-etch plate-making, plate-graining, ink and ink problems, maintenance of blankets and rollers, and operation of the press.

Post Mortem: The Inquest on a Job That Has Died. H. H. T. Alway. *Paper and Print*, 10, No. 38, Summer 1937, pp. 106, 108, 110, 112. Scientific methods of tracing difficulties in printing are discussed, particularly the investigation of press room troubles, and of difficulties traceable to paper and ink characteristics.

Miscellaneous

Gravure for Perfection in Printing Transparent Wrappings. H. W. Killingback. *Modern Lithographer and Offset Printer*, 33, No. 8, Aug. 1937, p. 162. Advantages of various methods of printing on transparent wrappings are compared. The gravure process, using heat or air blasts between printing units, produces the most consistent and pleasing results, both in single and in multi-color work. The aniline process is cheaper, and can be used in multi-color work, but results are less uniform than in gravure. The letterpress process cannot be used when it is necessary to re-reel the wrapping immediately after printing, or when it is necessary to print on both sides. It is superior to aniline printing in appearance, ex-

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cept where large masses of opaque color are required. Some of the newer machines combine two of these processes, using aniline printing, for example, for broad masses and letterpress or gravure for finer detail.

Aniline Machines and Their Uses. J. B. Shaughnessy. *Paper Trade Journal*, 105, No. 7, Aug. 12, 1937, p. 44. The development of the aniline printing method has opened some interesting fields. Paper may be produced white, and subsequently stained to the desired color, as needed. The time is not far off when the aniline machine will be attached to, or become a part of the paper machine, to be used or not, as desired. The imprinting of design or trademarks into paper at the wet end of the machine is already under consideration.

Skin Diseases in the Graphic Arts. W. Schweisheimer. *Graphic Arts Monthly*, 9, No. 9, Sept. 1937, pp. 18, 20. This article deals with the diagnosis and treatment of dermatitis in printing plants. Chromium compounds, strong lyes, zinc mordants, and such solvents as turpentine, benzol and petrol (gasoline) are frequently the cause of skin trouble. Thorough cleanliness and good general health are important in resisting injury, while avoidance of contact with the irritating substance and patient treatment of the proper kind are necessary in effecting a cure.

Life Span and Life Earnings in 16 Selective Occupations

The following tabulation represents a study of eight years by Professor Harold F. Clark in charge of Educational Economics in Teachers College, Columbia University:

Occupations	Present Value of Average Earnings of	
	Working Life Span	Working Lifetime
Medicine.....	42	108,000
Law.....	43	105,000
Dentistry.....	45	95,400
Engineering.....	45	95,300
Architecture.....	43	82,500
College Teaching.....	44	69,300
Social Work.....	45	51,000
Journalism.....	46	41,500
Ministry.....	44	41,000
Library Work.....	46	35,000
Public School Teaching.....	45	29,700
Skilled Trade.....	44	28,500
Nursing.....	40	23,300
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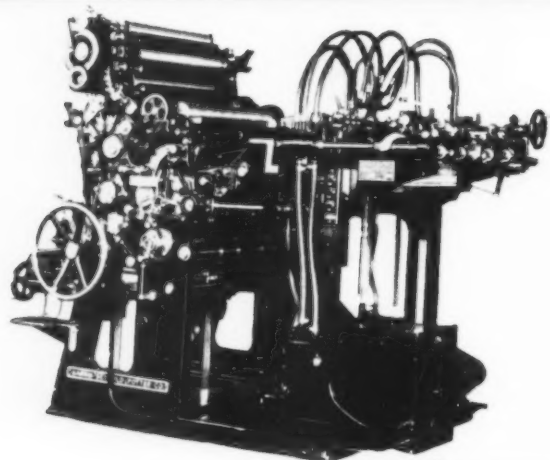
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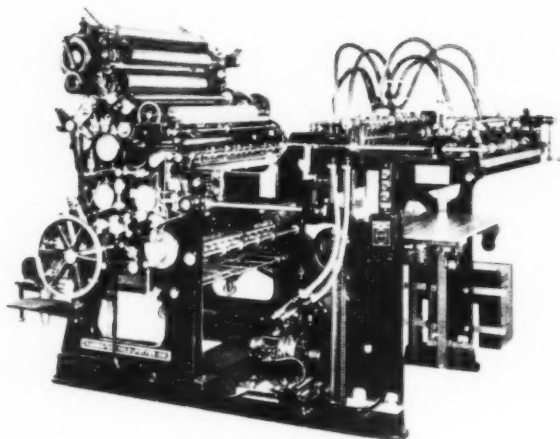
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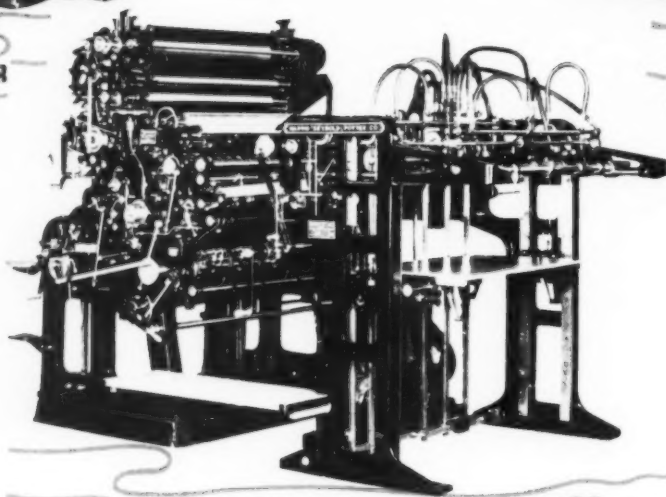
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